

MILITARY MEDICINE

ORIGINAL ARTICLES

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Medical Manpower: An Analysis of the Availability of Physicians for Military Service

By

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(With three illustrations)

THE PROBLEM

THE requirement of the armed forces for physicians has been the subject of numerous studies, both by governmental agencies and the medical profession. Following World War II, the Department of Defense made an exhaustive study of the use of medical resources during that conflict.¹ In 1952, Magnuson, *et al.*,² made a further survey into the adequacy of the health resources of the nation considering the requirements of both civilian and military agencies. More recently, Rusk, *et al.*,³ studied the needs of the country in terms of possible 1956 mobilization and nuclear warfare.

Present changes in the organization and employment of the armed forces as well as the expanding population, warrant further study of the availability of physicians during the immediate future. No study of this sort can be considered as completely accurate since projection of present and past data carries the possibility of error. The necessity

of future planning, however, justifies such projection.

The experience of World War II indicates that the formal training period of physicians can be reduced by only a small amount. This reduction is probably one of time rather than curriculum. The absolute need to maintain rigidly high standards of professional training requires no defense. Both the art and science of medicine are becoming more complex each day.

During the period 1940 to 1954 there were 79 approved medical schools in the United States,⁴ 80 in 1955, and 81 in 1956.⁵ These figures exclude Canadian and Puerto Rican schools of which there were 13 in 1956. Increasing the number of medical schools presents complex problems, including procurement of physical plants, funds, qualified instructors, and clinical material. These facts cause us to believe that the rate of increase of physicians can be predicted.

ANALYSIS

The opinions and conclusions expressed herein are those of the authors and are not to be construed as the opinions of The Surgeon General, the Department of the Army or the Department of Defense.

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Table 1 shows the number of physicians in the United States during recent years, the increase or decrease per year, and the number of medical school graduates during the preceding year. If we assume that these figures, excluding those for 1956, represent a trend, then it appears that the number of physicians in the United States is increasing about 2% per annum. This reflects, in part, an increase in the number of medical schools. It appears that it requires 1.65 medical school

TABLE 1
INCREASE OF PHYSICIANS IN THE UNITED STATES 1951-1956

Year	Number of Physicians In U. S.	Increase Over Previous Year	Increase As % of Previous Year	Medical School Graduates of Previous Year (U. S.)	Ratio of Graduates To Increase
1951	211,680	7,321	3.6%	5,553	1:1.3
1952	214,667	2,987	1.4%	6,135	2:1
1953	218,522	3,855	1.8%	6,080	1.6:1
1954	221,779	3,257	1.5%	6,668	2.1:1
1955	Not Available	Not Available	—	6,816	—
1956	209,709	-12,070 (less than 1954)	—	6,935	1:(-).8 (taking 1954 and 1955 together)

Derived from Statistical Abstracts of the United States, 1956; Table No. 82, p. 78; and American Medical Directory, AMA, 1956; pp. 11, 16.

graduates to add one man to the physician population of the United States.

Figure 1 demonstrates graphically the number of physicians in the United States since 1920 and corroborates the rate of accumulation. The trend has been projected in Figure 1 on a straight line basis. This projection indicates that there will be 226,000 physicians in 1960, 248,000 in 1965, and 270,000 in 1970. If one projects the data on the basis of a cumulative curve, excluding 1954 to 1956, then the figure for 1970 is

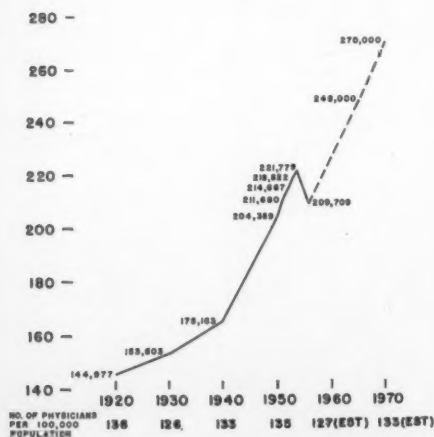


FIG. 1. Number of physicians in the United States (projected to 1970). Derived from: *Statistical Abstracts of U.S.*, 1956, table No. 82, page 78. *American Medical Directory*, 1956, table No. 1, page 11.

approximately 275,000. If the latter decrease is considered in constructing the curve then the 1970 figure will be in the neighborhood of 240,000.

Since a certain number of physicians are not active practitioners, it is desirable to exclude them from the estimated available pool. Magnuson² reports 9,700 inactive physicians out of 201,277 in 1949 or 4.5%. The American Medical Association⁵ records 11,629 inactive among 209,709 in 1956 or 5.5%. This being the only data available to us, we used the more conservative figure of 4.5% to estimate the number of active physicians during the time frame under consideration. Based upon our straight line projection, Table 2 reflects the estimated active physicians for the three selected years. No differentiation by sex has been attempted since statutory authority exists for commissioning female personnel as medical officers. In addition, if a high proportion of male physicians enter military service, then female

TABLE 2
ESTIMATED NUMBER OF ACTIVE PHYSICIANS

Year	Total Est. Physicians	Less 4.5%	Number Estimated Possibly Available For Military Duty
1960	226,000	(-)10,200	215,800
1965	248,000	(-)11,150	236,850
1970	270,000	(-)12,100	257,900

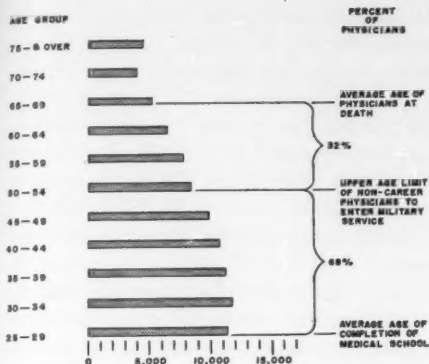


FIG. 2. Distribution of population and physicians in the United States by age: (1955) (in thousands). Source: *Statistical Abstracts of U.S.*, 1956, page 26. *Biological Effects of Atomic Radiation*, page 35.

physicians can be expected to provide a greater proportion of the care of the civilian population.

Figure 2 indicates the distribution of the population, 25 years of age or over. Since most medical school graduates do not have sufficient training to start practice until age 25, this age is considered the lower age limit of available physicians. The highest age that has been discussed, in considering military requirements for physicians, is the 51st birthday. Accordingly, we have considered age 50 to be the upper age limit for physicians suitable for military service. Warren, *et al.*,⁶ state that the average age, at death, of physicians having no known contact with radiation, is 65.7 years.

This means that, for our purposes, the useful life of the average physician is from 25 to 65.7. Upon the assumption that the age distribution of the general population is applicable to physicians, by reference to Figure 2, we estimate that 68% of all physicians will be within the age group eligible for military service. Thus 68% of the possible available (Table 2) indicates a maximum estimated pool of physicians for military use is 146,000 in 1960, 161,000 in 1965, and 176,000 in 1970. Can this number of physicians be employed without depriving the civilian population of adequate medical care?

Rusk and his coworkers³ state that the maximum staffing ratio during World War

II was 6.2 physicians per 1,000 troops. This fell to 5 physicians per 1,000 troops in the armed forces by June 1945, about one-third of the physicians of the United States at that time. We deduce from this that the number of physicians not in the armed forces in June 1945 probably represents the minimum level of medical support for the civilian population which will be tolerated by the people of the United States.

Rusk's report³ places the actual physician strength of the armed forces in June 1945 at 60,200 of 174,000 active physicians in the country (including the armed forces). On the basis of these statistics, we have derived a staffing factor to be applied to the civilian population (less the armed forces) which will permit us to estimate the number of physicians we believe would be required by the civilian population in the future.

Population in 1945 ³	139,586,000
Less the armed forces ³	12,123,000

Population requiring civilian medical service	127,463,000
Active physicians	174,000 ³
Less those in service	60,200 ³

Difference	113,800
Number of active physicians per 1,000 of civilian population	0.89

Based upon the preceding assumptions, the following formula can be used to determine

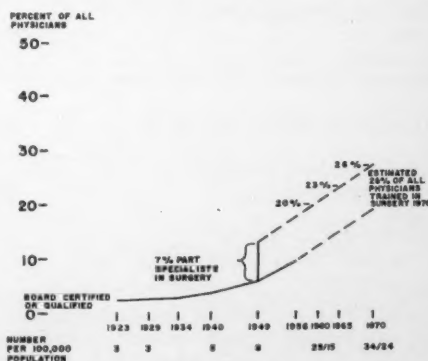


FIG. 3. Percent of physicians who have surgical training (projected to 1970). Derived from: *Building America's Health*, Vol. 3, table 208, page 160; and table 210, page 161; and table 211, page 161; and table 219, page 171. *American Medical Directory*, 1956, page 17.

TABLE 3

PROJECTED POPULATION OF THE UNITED STATES

Year	Maximum	Minimum	Average
1960	179,358,000	176,452,000	177,905,000
1965	193,346,000	186,291,000	189,818,000
1970	209,380,000	196,370,000	202,875,000

Derived from Statistical Abstracts of the U. S., 1956, p. 6.

how many physicians of the proper age group can actually be employed in the armed forces without serious popular objection.

$$P - \left(\frac{T-S}{1000} \times 0.89 \right) = M$$

P = Total active physicians

T = Total population

S = Strength of the armed forces

M = Physicians available for military service

In warfare, a considerable portion of medical effort is concerned with the problem

of surgery of trauma. This problem requires the use of trained surgeons if low rates of mortality and morbidity are to prevail in the future. We, therefore, projected the availability of surgeons, both partially and fully qualified (Figure 3). We estimate that about 26% of all physicians available to the military services in 1970 will have surgical training prior to entry into the service.

To visualize the effect upon the military medical staffing, let us assume that the armed forces in a total mobilization will require a strength of about nine million men. Using the average of the Bureau of the Census estimates of the population in 1960, 1965, and 1970 (Table 3), we can compare the projected availability of physicians with the requirements for civilian and military physicians. This has been done in Table 4 based upon Rusk's³ estimate that a requirement exists for 68,000 physicians to man emer-

TABLE 4

COMPARISON OF AVAILABILITY OF PHYSICIANS

	1960	1965	1970
Total population	177,905,000	189,818,000	202,875,000
Less armed forces	9,000,000	9,000,000	9,000,000
Population requiring civil medical support	168,905,000	180,818,000	193,875,000
Physicians needed to support civil population	150,300	160,900	172,500
Estimated number of active physicians	215,800	236,850	257,900
Physicians available for military service	65,500	75,950	85,400
Less Civil Defense requirements (assumed static)	68,000	68,000	68,000
Number of physicians per thousand troops—Meeting C D* requirements	0	0.88	1.93
Meeting $\frac{1}{2}$ CD* requirements	3.5	4.6	5.7
Available physicians with surgical training meeting $\frac{1}{2}$ CD* requirements	6,300 (20%)	9,650 (23%)	13,700 (26%)

* Civil Defense.

gency installations, other than established medical facilities, in the event of nuclear attack upon the civil population. If only half of the requirement is added to the civilian staffing factor, the armed forces would be able to staff only an approximate 3.5 physicians per thousand troops for a nine million man force. This does not take into account losses of physicians due to enemy action or civil disaster. Neither does it allow for an increase in Civil Defense requirements caused by population growth.

Possibly, warfare of the atomic era may not impose the same demand for physicians and surgeons as has been encountered in the past. Lack of experience factors, however, would seem to preclude a reduction in manning requirements from either the civilian or military viewpoint. Indeed, the possibility of widespread destruction would seem to increase our requirements.

From this analysis, it would appear that the availability of physicians and surgeons will continue to be such as to require careful planning to insure the most efficient use of their valuable services.

SUMMARY

The rate of expansion of the physician population is analyzed and projected to 1970. It is estimated that 146,000 physicians would be eligible for military service in 1960, 161,000 in 1965, and 176,000 in 1970.

Based on World War II experience, it appears that the civilian population will need a minimum of 0.89 physicians per thousand during wartime. This demand will be increased by a Civil Defense requirement something on the order of 68,000 or more physicians.

In terms of a nine million man armed force, staffing ratios would be less than two physicians per thousand if total Civil Defense requirements were met. If only half of the Civil Defense requirements were met, a nine million man force could be staffed

with physicians at about 3.5 per thousand.

Future planning must insure the most efficient use of physicians and surgeons. Although it is the purpose of this article to estimate the availability of physicians and surgeons, it would appear that to support civilian and military medical needs, either some reduction in Civil Defense requirements, a smaller military medical force (definitely undesirable), or a combining of Civil Defense and military requirements must be entertained.

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Liaison Activities Between Civilian and Military Health and Social Agencies*

By

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IT WAS of interest to me to find that other groups had been thinking and talking in terms of coordination of activities. The National Advisory Council on Local Health Departments of the National Health Council held its ninth annual meeting in Cincinnati, March 19, 1957. Dr. Ernest B. Howard, Assistant Secretary of the American Medical Association, brought greetings to the council. The theme of his message was, "We Need Each Other." In developing this theme, Dr. Howard urged that close liaison be maintained between the medical society and public health, as public health programs are developed.¹

As attempts are made to solve health problems on the national, state and local level, it becomes more evident that all agencies and organizations interested in "healthy people in a healthy community" must work together to accomplish the job. This concept involves civilian and military agencies; it involves official and voluntary agencies. So, in civilian and military health and social agencies—"we need each other."

For the next few minutes we shall concern ourselves specifically with the "whys" and "hows" of liaison activities, and finally with the very crux of this and all our activities—good human relations.

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Perhaps during yesterday's discussion of home visits, out-patient and clinic services, many of you thought of patients or families with overwhelming problems. Perhaps you thought of patients whose physical conditions might have responded to medical care, but there were other forces in action with which you could not cope. The physicians and nurses had real feelings of frustration in not being able to meet the patients' needs.

We recognize today that many sick individuals or families present an array of needs for medical care, financial assistance, emotional and social adjustment, preventive measures, and health education. One organization or agency alone cannot provide all these services. Yet, frequently all these services are necessary so that the individual or family can become a functioning member of the community.

Why is it that today we feel so keenly this "need for each other"—the necessity for coordination of activities between agencies and between departments within an organization? We have just referred to the multiplicity of needs when illness or disability strikes an individual or a family. Our society today is a highly complex one, characterized by a marked degree of specialization. This occurs not only in nursing and medicine, but in social agencies, in business and in industry. This is part of our culture. We are a mobile population, tending to concentrate in urban areas. Our young people are marrying earlier and striking out on their own. Our birth rate is steadily climbing, while the number of persons in our population over 65 years of age continues to increase. We are rapidly moving away from the large, closely knit family which lived in or near the "old home place." Some of these characteristics are, of necessity, found more frequently in military population than in the civilian population.

We, in the health field, refer frequently to the terms such as the "value of teamwork," and "interdisciplinary approach to problem-solving," the "total patient," "family centered care," and "planning for continuity of care." We must realize that these lofty-sounding phrases remain just that until we recognize that the services of one professional group and one organization or agency are usually not sufficient within themselves to meet the total needs of the patient. If we pool our professional skills, facilities and resources on a coordinated basis, our common objectives may be attained.

We have defined the need for liaison activities, or have determined the "whys." How to establish and maintain liaison is our next consideration. We might do this by thinking in general of some methods and tools applicable to the subject, and then applying them specifically to military and civilian liaison activities.

The public health nurse, when starting a program in any community, must have the acceptance and support from the local physicians and nurses in order to function. Army health nursing is a comparatively new service. In thinking of liaison activities, I feel that a very good place to start is within the institutions offering this service. The military hospital personnel must be orientated in the role of the army health nurse. This would include the physicians, the nurses, the dietitians, the social workers, the physiotherapists, and the hospital administrator. We all recognize why this orientation is necessary. Our medical school and schools of nursing have only recently included prevention of illness in their over-loaded curriculums. The patient as an individual, as a member of a family, living in a community, is just being recognized in some professional schools. However, doctors, nurses and other personnel frequently are concerned with prospects for care when the patient leaves the hospital. Although medical science is more complex today, with intricate diagnostic tools and techniques; new, powerful drugs; phenomenal surgical procedures, the patient's hospital stay is shorter. The diabetic, the cardiac,

the terminal illness cancer patient, the premature infant, the prenatal with complications, and even the displaced young mother with her first baby are a few of the patients for whom follow-up care is essential. This group might constitute a ready-made case load for the health nurse to demonstrate to the hospital staff her role in helping to provide adequate medical care. If the nurse on the ward or in the out-patient service is aware of the functions of the health nurse, she can and will initiate communications between the physician, the patient and the health nurse to provide continuity of care. I would like to add here that this orientation in the role of the army health nurse should be inclusive—should describe the program policies and scope as well as the nurse's duties and responsibilities in the generalized program. A clear understanding of the limitations of the program is essential. Priorities for nursing service should be established and accepted.

How is liaison between agencies established and maintained? When referral is indicated, the patient or his family cannot simply be sent over to the agency designated in the directory as providing certain services. The agency to which the patient was referred may not be in a position to render the expected service because of policy, insufficient personnel or facilities. The patient is the victim. If, however, health and social agencies in a community sit down together for the purpose of defining the problems, evaluating the existing services and accepting responsibility in their respective areas, the patient has a better chance of having his total needs met. Liaison between agencies demands a mutual understanding of agency objectives, policies, scope of services, including personnel and facilities. As each agency knows what services may be expected from the other, and working relationships are established, lines of communication become operative.

A knowledge of community resources, medical and social, voluntary and official is necessary for this type program planning. Chapters of national organizations such as the American Red Cross, the Tuberculosis

Association, the Infantile Paralysis Foundation (now the National Foundation), Cancer and Heart Associations, may be found in most communities. Hospitals are being built in communities all over the nation, so that most people do not have to travel outside a fifty-mile radius. Local public health services are available in most counties, and public welfare services are available in all counties. In urban areas the services of agencies such as Social Service Exchange, Family Service, Child Services or Child Placement Association, and Child Guidance Clinics may be secured. Character building organizations such as Big Brother and Big Sister Clubs, Y. W. and Y. M. C. A., and Boy and Girl Scout Clubs have been developed in many cities. Medical and educational services for the exceptional child are being organized on a much wider basis than formerly. A directory of community health and social agencies would prove most helpful to a recently assigned army health nurse.

As nurses participate more in this coordinated program, we become involved with a variety of professional people (social workers, psychologists, nutritionists, teachers, and rehabilitation counselors)—all with a common goal, but with different professional backgrounds. If our objective of total patient care is to be achieved, we must have not only a clear delineation of agency policy, scope of activities and facilities, but knowledge and acceptance of role of allied professional groups.

The February 1957 issue of *NURSING OUTLOOK* contains an article titled "Social Workers Look at Public Health Nursing." In reporting the study, the authors make the following introductory remarks:

"Public health nurses and social workers frequently provide services to the same families at the same time. When their services are not coordinated, duplication of effort, conflicting advice, and confusion result.

"It has been our experience as public health nurses that both professional groups recognize that they have a great deal in common, and that they are anxious to coordinate their services, but before they can do so, each

group needs to understand the functions and responsibilities of the other, and to define the services each is best prepared to give."

The objectives of the study as reported were:

1. "To learn what the social worker knew about the public health nurse's functions.
2. To determine the areas in which better understanding is needed to strengthen the team approach concept.
3. To determine whether social workers felt they needed a better understanding of public health nursing functions.
4. To determine whether there is any relation between the social worker's professional education and his understanding of public health nursing."

The setting and design for the study were described. Responses to the questionnaire were tabulated and commented. The following recommendations were made:

"On the basis of our findings, we offer these recommendations to improve working relationships between social workers and public health nurses in the interest of developing an integrated public service:

1. The study of the public health nurse's functions should be included in the curriculum of more schools of social work, and should be taught by nurses who are actively engaged in nursing.
2. Greater emphasis should be placed on the public health nurse's role in the orientation programs provided for social workers who are employed in states (provincial), districts and local governmental agencies.
3. In-service education programs should be planned for the staff of both groups so that each group will be informed about the work of the other.
4. Local public health nurses and social workers should assume more responsibility for interpreting these functions and providing information about changes and trends in programs. This could be accomplished by exchanging

(a) written procedures and policies, which would include information about referral methods; (b) holding more interagency policy conferences at local and state (provincial) level; and (c) clarifying the responsibilities of each group—nurses and social workers—through cooperative efforts.”²

Public health nurses also need to know more about the professional background of social workers and other allied groups. This might be accomplished if more studies of this type are done. Sharing educational experiences, as in schools of public health, is another way of acquiring better understanding of professional preparation, competencies, and functions of co-workers.

Effective communication is of prime importance in liaison activities. What are some of our most frequently used modes of communication and how effective are they? Telephone conversation, individual conferences, the written word and group conferences are a few. Generally, experience has proven that better cooperation can be achieved when representatives from the involved agencies consider the problem together, establishing lines of communication. Person to person conferences promote better understanding and frequently facilitate prompt action. Telephone conversations are convenient, but are considered least effective. Follow-up is almost always essential. There are times when written communications such as referral forms, case summaries and progress reports are necessary. The interview is a frequently used method of communication. Most of us can profitably devote some time and thought to periodically evaluating ourselves as interviewers and interviewees. We probably will find that our skills in the use of the principles and techniques of interviewing need sharpening. Interagency policy and case conferences, orientation, and in-service education programs have already been mentioned.

Good human relations are the very foundation of liaison activities. This type relationship requires first of all that we understand ourselves in order that we may understand

others. “Know thyself,” personally and professionally. We need to have a clear concept of our professional responsibilities and duties in relation to our agency service before we can work with individuals in other agencies. A genuine interest in people is important. Respect for the individual and for the other agency as having a worth-while contribution to offer is also necessary. In order to establish good relations the individual and the agency must be accepted on a partnership basis. In thinking of good human relations as the foundation of liaison activities, we again recognize that our ability to effectively communicate is often a decisive element.

We have defined the need for liaison activities and suggested guide lines for establishing and maintaining cooperative activities between agencies so that we may better accomplish our mission. I feel that one illustration of liaison activities might be helpful at this time.

This is a summary of a case conference in which the community health and social agencies rendering service to the family participated. A brief review of the family background might be helpful to us before the case conference is reported. Mr. and Mrs. S were married in 1942 while Mr. S was in the Army. He was discharged in 1946 and within the year was admitted to a Veterans Administration Hospital. The family moved to their present location in 1948 to be near him. Shortly after this move Mr. S requested a divorce. The children were born in 1944, 1946 and 1948. The second child, a boy, was fatally injured by an automobile in front of his home in 1956. Mrs. S had many psychosomatic illnesses. She was unable to hold any job for long, and finally stopped even looking for one.

Agency personnel present during the conference were:

Local health department—Public health nurse and social worker.

Local welfare department—Agency director.

City schools—Visiting teacher and school nurse.

Vocational Rehabilitation Department—Counselor serving the area.

The patient's private physician.

The patient had been known to all the agencies for a number of years. The presenting problem at this time was non-attendance at school of the patient's 14-year old daughter, now in the eighth grade. Problem given was mother's fear of being left alone. The visiting teacher referred the case to the psychiatric social worker at the health department, who visited the home with the public health nurse.

Coordination and planning for community treatment approach was indicated. The case conference was arranged with the agencies and the attending physician.

The visiting teacher reported the daughter's absence from school for almost two months of last year's term and negligible attendance this year. The children do average work when they attend and present no serious behavior problems. The welfare director had certified the patient for medical care at the local hospital and at a larger hospital in the near-by metropolitan area. The mother applied for Aid for Dependent Children when her husband was granted a divorce, but no financial payment was possible to supplement the father's \$60.00 monthly support payment. The Vocational Rehabilitation counselor reported work with the patient toward job placement, medical care, purchasing of hearing aid and repair of same. The health department reported negative chest x-rays over a period of years. All these agencies have invested much money and service in the patient and her children, but are disappointed in their results. Primary concern now was how to break the pattern of dependency and prevent increasing emotional maladjustment in the patient and her children. The agencies and physician recognize the need for psychiatric care, but the patient seems not to be a candidate for the State Mental Hospital. Local free care was not available. Medical State Aid was not practical.

Decision of the Conference regarding treatment plans:

Welfare or Vocational Rehabilitation will pay for psychological evaluation.

Vocational Rehabilitation will have psychiatric evaluation after this is done.

Private physician will do a complete physical examination. Psychiatric social worker will prepare a social history for the consulting psychiatrist.

Visiting teacher will continue counseling with the daughter and work with the mother toward regular school attendance.

Long Range Goals:

Job placement and rehabilitation of patient.

Probable Child Guidance Clinic Services for the children.

Better social adjustment of entire family.

The group recognized from the outset that they might again fail to accomplish their goals with Mrs. S. The primary concern was the children. They also felt that the inter-agency conference approach had been a most valuable experience, and that this approach could be used on other occasions to the mutual benefit of all concerned, including the community.

There are a few illustrations of liaison activities between military and civilian agencies in Georgia which might be of interest. The Third U. S. Army Laboratory Section and Laboratory Service Division of the State Health Department frequently exchange information and work together on projects. Health education materials, such as books, pamphlets, slides and films are used by personnel from several military installations within the state, secured from the local or state health department. In-service education programs planned for local health department and hospital personnel are frequently attended by nurses and technicians from near-by military installations. Army health nurses have requested and received public health nursing consultative services on two occasions. In one area the local health department and military hospital have developed plans for public health nursing follow-up to expectant mothers and infants, when the family lives off the post. However, in another section of the state, efforts to provide this type service failed. Several factors were involved in this failure, I think—namely poor communication, failure to

clearly define the needs, and the civilian agency's personnel shortage.

Here, we might consider some material and tools which were helpful in liaison activities between civilian and military agencies:

1. Map showing Division of Local Health Organizations.
2. Organizational chart—Georgia Department of Public Health.
3. Statement of agency organization, policies, services, district office, fees and committees. Visiting Nurse Association of Boston.
4. Brief description of agencies which provide health, welfare and recreation services. Directory of Community Services.
5. Referral information to other agencies—Massachusetts General Hospital, Boston.

SUMMARY

We have established the need for liaison activity between civilian and military health and social agencies. We have recognized that individuals and families have a wide variety of needs, medical and social; that the most

excellent medical care may be dissipated if continuity of care is not planned when the patient is dismissed from the hospital. We also recognized that frequently one agency alone cannot meet the patient's needs, but through cooperative action among agencies, more can be accomplished. Ways and means of establishing and maintaining liaison were discussed, highlighting the importance of effective communication and good human relations. Some materials presently being used by community agencies which might be of interest to the army health nurse in program development have been mentioned.

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"So neither ought you attempt to cure the body without the soul; and this is the reason why the cure of many diseases is unknown to the physicians of Hella, because they are ignorant of the whole, which ought to be studied also. For this is the great error of our day in the treatment of the human body, that physicians separate the soul from the body." PLATO.

The Organization and Utilization of Volunteer Groups*

By

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IN carrying out the many, varied, and what must often seem endless responsibilities which each of you has as a nurse to the Army community, have you ever wished for skilled and willing helpers? One or two helpers for a day at a time regularly? Or dozens for a couple of hours every day during some pressure period? I am sure everyone of you has at some time longed for such helpers and all of you can find them—as some already have—in volunteer personnel.

We have been invited here today to talk with you about some essential guide lines in the use of volunteer personnel resources.

Each of you is, I know, an experienced administrator—familiar with the supervision of a professional staff and with sound personnel practices.

The good practices you use routinely with other staff are applicable to volunteers, for volunteers are just people who undertake jobs on a part-time basis, without monetary compensation. So as we talk about some of the principles in establishing volunteer service, I am sure you will be reflecting upon things you already know "by heart."

To begin at the beginning: *how does one get started* developing volunteer service? The first question is: "What jobs need to be done?"

You will then need to determine which of these could appropriately be assigned to part-time staff. To test the appropriateness of volunteers being asked to do the job, ask yourself whether it is a job for which military health service will accept responsibility if it is performed by a volunteer; and ask

yourself whether regular staff is available to give volunteers the necessary training and supervision.

Now, from the list of appropriate jobs which you have thus sorted out, the next step is the preparation of a job description. This is the statement through which you hope really to secure the helpers you need; therefore, it must be clear and correct, covering the nature of the duties to be performed; the hours of day and/or days of week helpers are needed; and the minimum length of time each person will be needed each week. Moreover, this job statement should indicate any special requirements (such as driver's license, purchase of a uniform, doctor's certificate of health) that are essential.

In using these job descriptions you will need to specify how many of each kind of helper you need and to determine the kind and length of training that will be given, and any other specifics—the same things you might want any staff member to understand about a job she is considering.

Where will you go to find these needed helpers? While you may know a few individuals who can help you or find others to help you, one sound plan for establishing and maintaining volunteer service is to go to groups that do their own recruiting.

In most communities there are organized groups which include in their activities the administration of volunteer service. Examples are: American Legion Auxiliary, Red Cross, Volunteer Bureau, Girl Scouts.

Such groups probably already have a designated leader through whom you can work.

On the other hand, there are numerous groups in communities which may not have a special plan for offering volunteer service, but which would arrange for you to contact their members who, individually, might be interested in volunteering. Examples of these are: women's clubs, church groups, fraternal

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orders, P.T.A. From the individual volunteers secured through contact with such groups, you may need to select (or share in the selection of) a group leader, so that you will have one person through whom to work.

Whichever kind of group you approach—or both—to get your needed helpers, you must make clear what the jobs are and make them appealing.

Let this appeal come from you, or another staff member of volunteer who *knows* the jobs to be done, not a message relayed through a club president or a project chairman. Mention specific, interesting aspects of the job as you see it. Moreover, it is good to enlist the interest and assistance of your professional colleagues. They can help you interpret the value of your health program in the community and the place volunteers can fill in it. A good way to widen the range of interest and secure recruits is to get wives' accomplishments before their husbands—get the men "talking up" this service too.

Right now let me say something very important: It is necessary for simplicity to use one pronoun ("he" or "she") and from weight of numbers, we find it easier to refer to the volunteer as "she." But, whenever we do this, also say "he" in your minds. There are increasing numbers of men volunteers; and, in the whole matter of recruitment and placement, do not fail to consider whether a man might do the job as well as—or do it better perhaps than—a woman. Recruit from organized men's clubs, fraternal groups and lodges, and church groups. Many workers have found that men like to undertake projects in which their groups can share—so that you may find you get "three for one" when you make a successful appeal to such groups.

Moreover, Red Cross has removed all age limitations for any of its volunteer services. We believe there are mature and capable young people and vigorous and interested elderly ones who will be the most effective helpers you can find for certain jobs. To choose the best person for each job involves your placement skill.

One of the most strategic aspects of your

whole volunteer personnel plan—any personnel plan, let me say—is *the placement interview*. Study the art of interviewing for better placement. First, of course, is to put the person at ease—without condescension. You need to get information—to find interests. Learn to listen, school yourself to think about what the other person has said and is saying to you, and why. Put yourself in his place and go along with him. Be sure you are "speaking his language." Through question and answer decide what job the person being interviewed is best fitted to do. Then is the time to give information: description of duties, required training, when and where to report for training, when and where to report for work, how long it is necessary to be on duty, any expenses involved, probable satisfactions of the job.

Likewise in your interview you have the opportunity to make necessary training attractive, speaking of it with enthusiasm and assuming that every person wants to be adequately equipped to do well any job she undertakes.

When an applicant is not suited to a job, both you and she will be unhappy if you place her in it just because you lacked the courage to tell her so. Practice ways of being honest—tactfully and kindly, but surely.

The carefully selected recruits will now be ready for *training*. Before you train a single volunteer helper, you have a training job to do with the whole staff with whom the volunteers will work, so that they will understand the reasons for having volunteer helpers, the jobs the volunteers can do, and what each staff member will have to do to help the volunteers.

Next comes the orientation of volunteers to the setting in which they are going to work. First of all, they need to know the purpose of the program in which they are helping: what the whole staff working together expect to accomplish; the organization of the staff into which they fit; and the nature of the jobs others are doing. Indeed, where it is practicable, to have some of the other regular staff with whom they will be working share in giving this introduction to

the program can have the "bonus" value of helping co-workers (full-time and part-time workers) get acquainted and develop an understanding of each others' roles. Each group of volunteers you train should know the role of any other volunteer groups who may also be a part of the whole program staff.

The volunteers will need to know, too, the kinds of people whom they will serve; the institutional ethics and regulations (including any procedures required for their own protection).

They should have an explanation of service restrictions; medical or other clearance for those to be served; reasons for making referrals to others; and restricted places or hours of work.

Finally, the volunteers will need to know explicitly their duties and acquire the skills necessary to carry them out.

The orientation (or introduction to the setting) might well be given to a number of volunteers together, from various groups. The skills for specific assignments may differ and involve training smaller groups or even individual volunteers. Job skills may involve actual practice under supervision and probationary hours. An experienced volunteer is often a most valuable training assistant.

It is in the area of *continuing supervision* that you "protect the investment" you have made up to now (of time and thought and care) in your volunteer program. This is the point at which it is decided whether the volunteer really "performs on the job," performs with increasing skill and satisfaction to those she serves and to herself.

The volunteer must know to whom she is to report; she must be "expected." The supervisor must have real, responsible jobs lined up and a list of duties ready. The volunteer must see how her part relates to the whole and feel that she "belongs." She will want to know from her supervisor how she is doing. She must be given a chance to share experiences and to learn from others doing work similar to her own. And the supervisor must notice when the volunteer is ready for more independent work and greater responsibility or leadership.

To administer a staff, and most especially what may be a sizeable staff on part-time schedules, requires planning and mechanics which should be well worked out and have "built-in" devices to keep the machinery oiled and in good working order.

You will remember that we mentioned earlier two types of groups in which you may find volunteers:

(1) those groups organized to supply volunteer helpers and, therefore, having some of the mechanics of administration already established for you;

(2) those groups whose members you may interest as individuals, to whom you will have to give help and direction in the selection of a leader or contact person and in the development of needed administrative structure.

Some of the things which you can expect of the former kind of organizations you must develop yourself for the individuals you have recruited from the latter. You will need to determine in relation to any organization what its own administrative plans are and with which of these it needs your help. Some of the administrative mechanics you'll want to think about (which you can expect to find in such an organization as Red Cross, Volunteer Bureau, American Legion Auxiliary) are these: a plan for administration that includes organized recruitment, schedules of work, a plan for substitutes and a follow-up when absences occur; some pre-training regarding their own organization and the do's and don't's of behavior which it requires; a plan for requiring adherence to regulations (or for discipline upon failure to do so).

The standards and regulations of the organization (and in certain, specific cases the organization may have its own requirements for membership) are a support to you in insuring high standards of service. These develop a pride in service and discipline. Such an organization will probably have a system for recording service (perhaps by hours) and according "thanks" or recognition for work done by use of such things as insignia,

teas, advanced training meetings, promotion to positions of greater responsibility in the organization.

Two particular strengths come from the organization which recruits volunteers for you and assists you in the administration of the volunteer program: over-all leadership from the organization to which you could appeal for support; and an avenue for supplementary supplies, in support of the organization's volunteer service activity.

If we think of your volunteer helpers as the warp and your training and supervision as the woof of a sturdy and useful piece of material, there is a special golden thread that runs through the whole to give it both durability and beauty. This is your concern for *the human relations involved* in your administration of this whole program. What are some of the things you must think of in this connection?

Treat the volunteer as a part-time worker, not as unpaid, therefore privileged. Be understanding of "part-time" limitations, but not tolerant of undependable performance. Give real jobs and as much responsibility as possible; not "minor jobs, condescendingly given." Delegate, and help the volunteer carry out the work; don't take back bits when not done right the first time. Help the volunteer feel she belongs, even though she is not there full-time, by filling her in on plans and happenings.

If you are thinking about using volunteer personnel for the first time, or, if you think you can expand and extend your own health

services in the community by enlarging your volunteer staff, you may find it helpful to consider what volunteer activities have been successful in some communities: First Aid and Care of the Sick and Injured classes; enrollment of nurses as volunteer instructors; motor service to transport patients to clinics, etc.; Production Service to prepare and sew articles; Junior Red Cross or other youth groups to help with children; craft workers to help with recreation; Red Cross Volunteer Nurse's Aides to assist registered nurses with nursing care; Red Cross Gray Ladies to give a variety of services to patients (short of physical care) including personal instruction and "friendly visiting" in the home; groups to provide entertainment or supplies; church or canteen groups to provide refreshments; aides to assist with reception, clerical, and office work.

Volunteer service is growing in many fields. Knowledge of program is best achieved and interpreted by people who are participating in it. Volunteers provide more hands and feet, increase knowledge of the program, and attract greater financial support, which in turn provides greater opportunities for service. But this calls for support, technical guidance, and acceptance by the professional staff. The more time and effort invested in the initial plans and development of volunteer service, the greater will be the dividends. Team work between paid staff and volunteers is a partnership in which each has a knowledge of, and firmly believes in, the contribution of the other.



"A government can remain healthy only so long as it is subjected to the criticism of its citizens."

JOSEPH C. GREW in *Report from Tokyo*.

The Value of the Health Council in Program Development*

By

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THIS title covers two major ideas: (1) the health council as a mechanism to further public health nursing services, and (2) the big area of programming to meet best the needs of the community receiving the service. Both represent well established practices in public health nursing. My assignment, as I understand it, is to think with you about these concepts as they relate to the military and, specifically, to the work of the Army Health Nurse. To my uninitiated way of thinking, it seems best to state some basic assumptions in order that we might have a common point of departure. These assumptions may not seem valid to all of you. If they do not, I hope you will be ready to discuss them and to make suggestions after I have finished presenting this material. My assumptions are:

1. Public health nursing principles are applicable in any community regardless of the setting.
2. Army Health Nursing is public health nursing conducted in a specific military climate.
3. Families in the military have the same needs that characterize other human beings relative to their understanding and participation in the management of their own health problems.
4. The military setting presents certain difficulties and many advantages which might not be encountered in the same proportion in the usual civilian community.

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a. Advantages—

- (1) families are all employed and have income;
- (2) medical and hospital facilities are available to all;
- (3) the community is clearly defined and it is possible to know who is there at all times.

b. Disadvantages—

- (1) fluid population—personnel receiving and personnel giving service both tend to be more mobile than the total population in the average civilian community;
 - (2) some aspects of the military may tend to create tensions and stress situations to a greater degree than in the usual civilian community.
5. While the military requires a structure somewhat more rigid than that in the usual American community, it is possible, within this well disciplined framework, to permit the operation of democratic processes.

PROBLEMS OF PROGRAM PLANNING

The usual steps in program planning are already well known to you. They may be reviewed briefly as follows:

1. Gather facts pertinent to health in the community.
2. Analyze data.
3. State objectives based on needs.
4. Implement objectives.
5. Evaluate progress periodically.

Murray Nathan describes programming as a statement of what an "organization intends to do in a specific time interval."¹ This defi-

nition indicates that program development has at least two dimensions, the goals which are to be achieved and the time allotted for the achievement. Admittedly the health program for any community should be based upon needs. It is not hard to secure agreement on this rather didactic statement. Disagreement tends to develop when an attempt is made to delineate needs. Supposedly, the Army Health Nurse is expected to concern herself primarily with the health needs of the military personnel and their families who are living in the military community. The military already has a reputation for stating its purpose concisely. I quote Mr. Luther Gluck, now administrator of the City of New York and, during the Second World War, active in administrative work for Federal agencies:

"Military administration taught us a real lesson. With minor exceptions no activity was initiated by the military without clear definition—a definition cast in terms of objective, timing and resources. No organizational unit was set up without a statement of its mission. The success or failure of any man or any venture was measured against this specific statement of his mission."

Let us hope that Army Health Nursing never had and never will be one of the minor exceptions to which Mr. Gluck refers.

Army Health Nursing is rooted in two disciplines, nursing and the public health sciences. The Army Health Nurse must be alert to changes that are taking place in nursing and public health as well as to the changing needs of the community where she is trying to apply public health and nursing principles.

In formulating objectives for service it is well to be aware of the general direction which public health practice is taking. Dr. Leona Baumgartner has recently pointed out three significant trends which have influenced public health during the first half of the current century:²

1. an ever higher standard of living for more and more Americans, thanks largely to technological development and profound social changes;

2. tremendous successes in research and the development of new processes and technics for carrying on research;
3. great and often unheralded success in applying research findings to our problems.

During the past fifty years the life span has been greatly lengthened and the leading causes of death have changed. We now have a different though no less formidable set of diseases and disabilities. With the control of epidemics and communicable disease, mass approach technics are being superseded by the individual approach in which the private practitioner is directing efforts toward application of existing knowledge in terms of earlier diagnosis, better surgery, effective use of antibiotic drugs and better nutrition. In this area of personal health we must begin to think in terms of a built-in do-it-yourself kit. This does not mean that the patient can be expected to diagnose, prescribe for and treat his own ailment. It does mean that he requires more substantive knowledge that will enable him to make intelligent use of professional services and to apply this information to his own routine of good living. People must be roused to action for the protection of themselves and those for whom they are responsible against disease, death and disability. The effectiveness of any treatment is largely dependent upon the acceptance of the treatment by the individual who needs it. He must understand his diagnosis and the treatment prescribed and have the will to live with his disability. Many of the diseases now suffered by members of the human race are chronic in nature and their management requires a continuous life regime often including the change of intimate and long cherished habits such as those concerned with eating, rest, and activity. This is, perhaps, just another way of saying that the community health improves when members of the community become actively involved in coping with health problems which prevail in their community.

We are just beginning to apply epidemiological technics formerly reserved for com-

municable disease control to some of the chronic diseases. Public health nurses have proved themselves good members of the epidemiological team. They need to learn more about their potential value in working with groups both for purposes of therapy and for community planning.

The relationship between people and health services must inevitably be affected by the whirling tides of change and technological and scientific discovery. Health services are beneficial only to the extent that they become meaningful to those who use them.

The Army Health Nurse is well advised to base her program upon facts. She has the ability to plan the program independently and with great economy of time. Having it accepted is another problem. It may be infinitely more effective to involve health council members in gathering the facts and making the analysis. If they take the slow steps required to arrive at a decision, they are well on the way to giving it support. If the program is to be effective, it must be understood, accepted and promoted by those persons to whom the health nurse is administratively responsible as well as by others whose co-operative support is needed and those who will make use of the service. The best device which has been evolved in the long experience of public health workers is that of bringing together for group discussion persons who are interested or in some way concerned, or who have a potential for impeding or promoting the effort depending upon their orientation and their understanding. They have the opportunity to exchange ideas, to discuss varying points of view and to help with planning and decision making. The late Dr. C-E. A. Winslow expressed his views on this point as follows:

"Rugged individualism and free enterprise may be excellent things, but only if they operate under a sense of mutual responsibility, only if they are directed to the ultimate goal of the well-being of all the people who make up this nation of ours."³

In planning the program, the Army Health Nurse, like any other public health nurse, is constantly confronted with the necessity of

establishing priorities because there is always more work to do than personnel to do it; and she is eager to expend her efforts where they will do the most good. The ratio of Army Health Nurses to population served is not high. We do not know precisely the ideal ratio of public health nurses to population in civilian communities nor do we know whether the same ratio is indicated in military installations. In some military communities the services of the Army Health Nurse are new. In other situations she may be new to the post but may have inherited a set of routines and established policies from the nurse whom she has replaced which may or may not be supportable under the cold light of re-evaluation. Fortunate is the nurse, newly assigned to an area, who finds records that will acquaint her with the purpose and the extent of the service which she is expected to maintain and promote. The public health nurse often finds herself in conflict with others regarding the program. If she is in a situation where the Chief Nurse believes that her best contribution can be made through work in the clinics, or if the nurse who preceded her, spent most of her time servicing "sick call" for children in school, or if the mothers believe they can save themselves a trip to the doctor by requesting a home visit, the nurse may find it hard to reconcile the obvious needs with demands for services that have become hoary with age or that bear the aura of the Commanding Officer's approval.

COOPERATING WITH THE HEALTH COUNCIL

Professional persons are often all too justly accused of spinning their webs of projected services from their store of professional knowledge in their little ivory towers when approximately the same program could emerge through cooperative effort nourished by frank and open discussion. It will then have the added advantage of being well on the road to implementation because of the informed leadership that has been spawned by group activity. Another name for this group is a health council.

The health council should not be regarded

as a concession which clothes Army Health Nursing in a mantle of respectability and soothes the community into accepting whatever service is decided upon. It might better be thought of as the heart beat, the very life blood of the service which the Army Health Nurse seeks to render.

I quote Dr. Winslow again because his concept of a council for group planning is so descriptive of what I am trying to say:

"... a clearing house for ideas, plans and action; a piece of common ground where in good democratic fashion the many groups concerned can come together to look at the whole picture of community needs, evaluate present services and agree on next steps in achieving an orderly and adequate program of health and welfare. . . . Such a Council can co-ordinate the work of existing agencies, both voluntary and tax-supported; can locate unmet needs and find ways and means to meet them; can eliminate duplicating outmoded services and improve the quality of those that remain."⁴

Since the Army Health Nurse has been educated as a public health nurse, she has had more than the usual amount of preparation in the public health sciences and is well versed in the preventive and promotional aspects of health care, health education and health services directed toward groups. She has also developed skill in working with resources both within and outside of the military community. Her focus is on promotional and preventive rather than on therapeutic skills. She may very well be the only person in the entire medical unit with this specific orientation. When she assesses the health needs in the community, she could be expected to verbalize about a different set of needs than those which might be identified by the commanding officer, the other nurses or the consumers of the service. Because of these differences she sometimes encounters barriers erected by her potential allies. The health council provides a channel for communication and learning. It gives the Army Health Nurse regular and continued access to a group of key persons to whom she can try to interpret community needs which they

have not previously identified or about which they have not been concerned. It gives them an opportunity to ask questions and to seek clarification of points which they do not understand. It also makes it possible for members of the group to comment and to interpret to the nurse shades of community feeling that are not readily revealed by factual statistics, but which are very real factors in the operation of a public health nursing service. Sometimes the Army Health Nurse is proposing to initiate new procedures or she may want to discontinue well established routines because the facts indicate the wisdom of change. Most change, whether it is good or bad, can be expected to meet with some opposition on the part of those persons most likely to be affected by it and so the health problem co-exists with a problem in public relations. This difference in emphasis is not unique to the military. It confronts every public health nurse in any community where she may be working. It is obvious then that the key to her success is working with the group to study needs and plan for action. Planning and study are not to be confused. Planning often grows out of study, but planning itself is action oriented. It is concrete and tangible and represents one of the few defenses which the Army Health Nurse has against chaos.

Health nursing problems may be so vast that there is little hope of solving all of them in the immediate future. The statement of objectives could include long term plans of a fairly general nature but it should also cover more specific statements of goals which can reasonably be worked toward and achieved within a comprehensible time span. This is especially important when objectives are directed toward a mobile population. A succinct and specific statement should be agreed upon with a time limit which is realistic. This becomes the blue print which guides the work of the health nurse. As segments of the total problem are solved, new objectives can be formulated.

The persons planning must have facts upon which to build the program, courage to make these facts known to the group con-

cerned, and sufficient tact to secure their co-operation. The health nurse's leadership role is clear, but coupled with it is the necessity of leading no farther than the group is ready and willing to go. Her story is vital and her mission is worthy. She is trying to interpret the rational of prevention in contrast to therapy. The staggering burden born by the human race resulting in disease and disability that deprives the individual of the enjoyment of optimum health could often be circumvented by the application of knowledge and skills which we now have. To quote from the American Public Health Association Arden House Conference Report, "A major task of public health is to increase the competence of individuals, families and communities to cope with their own health problems." A casual observer gets the impression that the service of the Army Health Nurse is extremely significant because it is not always in the nature of the military organization to stimulate personnel to greater independent action.

What could be more welcome to the Army Health Nurse than a health council, composed of a cross section of the military community ready to share with her the responsibility and the satisfaction of accomplishing her mission!

Some of you already have health councils and do not need to be persuaded that they are helpful. If you have organized some successful ones, perhaps you will be willing to share your experience with the group. If you have tried a health council and have not found it productive, we would like to know what specific difficulties you encountered. If you honestly question the value of this device, your point of view will provide good material for discussion.

Some of you may feel that because your service is new, organizing a health council would offer one more complication to an already involved situation. On the other hand, if you have been assigned to an already established service and do not find a flourishing council, you may feel that it is too late to make it profitable or that starting a health council would entail too much change and would not be accepted. I have sometimes

heard the opinion voiced that a health council is a little gimmick which helps to stimulate interest in a new service but which will soon outgrow its usefulness. Nothing could be farther from the truth. If your service has been in operation for years, unless you can honestly feel that it is functioning to a maximum capacity through a program tailored to community needs with service always channeled in the direction that will be most effective, you might be considering possible ways of improving it. Chances are that one of your problems is still that of interpreting to the various groups concerned, what your service can do and to whom it is directed.

It takes time, hard work, and skill to organize a health council. The stakes are high and the results rewarding. In what other way can you enlist the talents of significant persons in your community to focus on community problems that otherwise would be yours to solve alone? If you do have a health council, listen to them. Remember that it is not their purpose to serve the nurse but to share in the implementation of an Army Health Nursing program. You are probably the only member of the health council with public health training and experience and the only one who is receiving a monetary reward for directing the Army Health Nurse Service. The council's performance will be, to a large extent, a reflection of your leadership. When you offer a community group an opportunity to participate in planning and executing the program, they also deserve a generous share of the credit for its success. The real leader will find ways of giving them recognition and public acclaim for the contributions which they have made.

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Enriching Professional Relationships*

By

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NO SUBJECT is as widely discussed today in the industrial and professional fields as that of human relations. Included in the program of almost every meeting and institute is a discussion of interpersonal relationship or human relations. Workshops and institutes devoted entirely to this field are being conducted in increasing numbers. The earliest research in human relations was undertaken by industry and fortunately so. For the medical and nursing professions have shown a lag in this respect. They have, however, derived a great deal of knowledge from the industrial studies for the same basic principles of human relations apply in all fields.

But what is this mysterious field of matter evolving from the study of human relationships? Has a satisfactory solution been found for every problem by some magic formula? How can we improve our interpersonal relationships both in our professional and personal lives? What can we as Army Health Nurses do to enrich our daily professional lives? These are some of the questions to be considered.

First, what are human relations and how do we attain good interpersonal relationships? Human relations is that field of knowledge devoted to understanding why people act as they do in their relationships with one another and the way in which we can make maximum ethical use of this understanding.¹ Human relations in hospitals and health agencies are vitally important.

Patients are extremely sensitive to attitudes and feelings of the professional personnel and a healthy psychological environment will contribute to the patient's progress

and recovery. Today, methods of research in machines, materials and products surpass that of the study of human relations. Being able to understand our own behavior, to help others identify felt difficulties and to apply the principles of human relations to problems that arise at all levels of experience constitute satisfactory interpersonal relationships.² Satisfactory interpersonal relationships are difficult to learn for they concern not only knowledge but emotions as well. They involve a combination of selfish and unselfish motives. A desire for service of various kinds and an unselfish concern for another as an individual with feelings to be understood and respected.³

We all know the principles of human relations. They were presented to us early in life when our parents taught us to employ the Golden Rule and to behave in a manner acceptable to our particular culture. With the pressures of modern living so numerous and responsibilities so involved, we easily neglect the human element in our daily contacts and the emotional aspects of the person. Every man is an individual with a unique personality which emerges as the result of the interplay between man's native endowment and environmental influences.⁴ We are all influenced by cultural factors such as family background, religion, nationality, schools, friends and past and present experiences. Physical factors, disease, injuries, climate and food exert their influence on the personality. Furthermore, environmental factors may be the result of personality structure.⁵ Some of the personality traits of the nurse emerge from professional needs, but the choice of the profession was first influenced by features of early personality make-up. Man will continue to be influenced by his past and present experiences as long as he lives. But since man is not a passive creature but has a free will, he can shape his life and personality by using his mental abilities

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to serve the purposes he chooses; man is not of necessity a slave to his environment.

In our daily contacts we meet a cross section of humanity, each with their own attitudes, values and needs, but sharing with their fellow men certain fundamental human needs. What are some of these basic human needs? They are familiar but their importance can never be too well emphasized. We need primarily to be ourselves, to think for ourselves, to be able to ask questions if we do not understand and to express our feelings about things.⁶ We need to be recognized and respected as an individual with our own principles, goals and capabilities and to be desirous of making a contribution to society's productivity. Perhaps the capacity to love, which is so often forgotten, is what we need and want more than anything else. When we recognize that need, the capacity to love will take on its real meaning. It will be a capacity to have knowledge of, to have understanding of and to have respect for ourselves and others.⁷ The Lord has said, "Love one another" but I do not believe He intended that we agree with or like every thing others do. But we can be sympathetic, charitable and respectful toward one another.⁸ We speak so much today about the insecure world we live in and insecure individuals. We know that a sense of security both economic and emotional is one of our greatest needs. All of us possess some feelings of insecurity, anxieties and fears; fears of failure and of making mistakes. Much of this insecurity is a result of past experiences and many of these fears and anxieties arise from a conflict of values and interests. In childhood we are introduced to norms of behavior of our cultural group. We find that as we grow into adulthood, our sense of values and ideals of behavior may conflict with those of the groups in which we are functioning. Our personality needs may not be satisfied. Defense mechanisms may arise to compensate for the resulting insecurity and may be manifested in social or apologetic behavior, arrogance, dominance, or boastfulness.

We may now say that we are aware of

these fundamental human needs as well as are our colleagues in other disciplinary groups. An understanding of individual differences and their implications in handling people is something we became cognizant of early in our careers. Why do we encounter so many personality problems in our professional and personal lives? The social scientists have demonstrated that self-understanding is directly related to an individual's capacity to do creative work with others. Insight into our own motivations, needs, prejudices, weaknesses and strengths provide a great opportunity for development and growth of the personality.⁹ Do I understand myself as a person? How are my intrapersonal relationships? Do I feel comfortable with myself? Do I have real emotional insight or is it intellectual insight? Can I distinguish between my needs and the needs of others? Do I realize that satisfaction of my needs does not in itself satisfy the needs of others? This requires self-control as well as self-understanding and is one of the most difficult lessons to learn.¹⁰ Do I understand why some people irritate me and others please me? Why do I react to some situations in an explosive manner and to others in an acquiescent manner? Do I choose my friends or prefer associates who are always willing to let me have my own way? Do I feel the need to live up to some unrealistic concept of perfection? Do I give in too readily when sound principles are at stake. These are some of the questions that come to mind when one attempts to analyze oneself. No one can please everyone all of the time and we must expect disapproval, criticism and some anxieties.

With the pressures of living so numerous, even the most stable persons experience conflicts. A Professor of Educational Psychology who spoke recently, summed it up very well in these words, "The person who is completely adjusted and free from conflicts is not alive; he is dead or may as well be. The person who understands himself and others knows he will never be free from conflicts in his life; he has a degree of stability but is also flexible; he can operate through other persons and groups but does

not always conform. He can maintain his integrity and knows where he is going and derives satisfaction from his work. He does not distort life's situation but see himself as others see him."¹¹ This is extremely difficult to do for we prefer to maintain our picture of ourselves and defend it at all costs. We all have mechanisms we use which prevent us from seeing ourselves as we are, blaming others for difficulties, never giving real reasons for doing things, not learning from experience.

During this process of self-analysis is it possible to become so aware of oneself that one attempts to alter his behavior? Elizabeth and Francis Jennings state this is possible, however, successful efforts are dependent upon the degree to which one is willing and able to look at oneself and to become more adequate and flexible through associations with others. Few will attempt to alter habits unless threatened with failure. Carl Rogers says, "The risk of being changed is one of the most frightening prospects many of us can face."¹² The way we function, the kind of persons we are will determine how we relate to other professional personnel.

Satisfactory interpersonal working relationships do not necessarily evolve when a certain number of people with professional skills and a sound knowledge of human behavior interact. Even when other social factors are healthy, the process of communication is complex. Communications are one of the major problems of effective relationships and are often traceable to semantic difficulties. Carl Rogers says, "That the gateway to real communications is listening with understanding."¹³ What does this mean? It is tranquil, thoughtful listening, understanding with a person and not about him. Ask yourself this question? "Does what I say mean the same to the listener as to me?" Through listening with understanding one develops empathy, ability to identify oneself in the same state of mind as another person or group; seeing the expressed ideas, feelings and attitudes from the other point of view, achieving his frame of reference in regard to what he is saying. This is difficult to achieve

and it takes real insight to understand what the words one hears really means. But another person's efforts to communicate are understandable only in terms of his own universe of experience, learning and motivations. To each of us another's universe contains errors and illusions, but to him his universe is the only reality he knows. One of the major barriers to mutual communications is the natural tendency to judge and evaluate the statements of other persons. The primary reaction is to evaluate it from your frame of reference. It is common in any interchange of language but heightened in situations where feeling and emotions are deeply involved. But unfortunately the stronger the feeling, the more necessary it is to see the others point of view. Chester Barnard has coined the term "observational feeling" the ability to feel without words but through observations not only the situation but the intention.¹⁴ It is sizing up the situation so to speak, when too little is said. Attempts to achieve another's frame of reference may never be completely successful but reasonable approximations may be reached. One's own viewpoint may be changed in the process, but difference will be reduced and mutual communication, pointed toward problem solving, will result. When one does not feel free to express feelings for fear they will not be accepted, communications have failed.

It has been said by some of the greatest men of our time that indifference to fellow creatures is the cardinal sin of humanity; this is the age of unrelatedness; people remain strangers to one another in spite of frequent contacts.¹⁵ Our relationships will be creative in direct proportion to what we give.

We have an excellent opportunity in the Military Service for cultivating a sense of human relatedness, to learn and know more about people with whom we come in contact. A military medical installation is often a community unto it self and all of the disciplinary groups with whom the Army Health Nurse interacts are part of this community. The doctors, nurses, dentists, social workers, psychologists, dietitians, physical therapists and occupational therapists all serve a com-

mon purpose: that of maintaining the optimum level of health for the soldier and his family. These people are highly specialized. Consequently, there may be a tendency for each discipline to consider its contribution to the total situation as the most important. It is with our own group that our first loyalties lie. We must never lose sight of the fact that each group has its own contribution to make that is equally important to them. In our group conferences, for which we come together to discuss a common problem or meet an objective, why not strive for mutuality in agreement. If all the advantages are on your side is it not really a lost bargain, because if you always win you may become conspicuous and distrusted. On the other hand if you permit the other persons to take all the gains, they are recipients of charity so to speak. If both sides profit mutually, relationships will continue to grow steadily and confidently.¹⁶ A healthy respect for the well being and personal integrity of the other fellow will go a long way.

In our enthusiasm for the development of the Army Health Nursing Program it sometimes is easy to lose perspective and forget that each individual situation must be evaluated carefully and that the program must of necessity vary from Post to Post to meet the needs of the military population. When newly assigned to initiate a program in a medical installation the Army Health Nurse is made aware of the needs of each service and acquires an integrated picture of military community needs and interests through her conferences with the Chiefs of services. The enthusiasm for the Army Health Nursing Program displayed by Chief of Physical Therapy, Food Service and Occupational Therapy and their staffs, in these conferences, is most encouraging. It is equally as important to meet in the same way if newly assigned to replace an Army Health Nurse. It is important for the doctors to know the person to whom they are referring their patients. It is not true that after we learn to work with a certain doctor and he knows our work, the number of referrals from him increase. Moving slowly at first and estab-

lishing rapport and effective communication with the groups we are to work with will pay dividends. If the program our predecessor has established is not to our liking or does not meet our approval, why not go along with it for a time. Are there not certain aspects of Army Health Nursing each of us prefer and do we not tend to emphasize those we feel are most important. Our predecessors may have worked hard selling the program as you see it and too many sudden changes may not be readily accepted by the other services. These factors will all contribute to the continuity of patient care and to the development of the Army Health Nursing Program.

Another important aspect in the continuity of care is including all key personnel of a related service in the planning or evaluation of that service. If it is relative to a Maternal and Child Health Service, in addition to the Chiefs of Obstetrics, Pediatrics and Nursing; the Head Nurse in the Ward or Clinic also plays an important role. In order to keep our plans patient-centered we need to have frequent contact with the Nursing Service and particularly the ward nurses. Who is better able to determine the patients needs and interpret them to us?

Since the establishment of the Army Health Nursing Program we have all been asked to participate in numerous Staff Education Programs and meetings. We have been most willing to do this for the opportunity of acquainting professional personnel with our program. I think we have done an excellent job of selling the program for our time is ever in greater demand. Most of the Army Health Nurses have a heavier case load than they can carry. However, after seven years we sometimes wonder if we have neglected to emphasize why we perform certain functions. Why does an Army Health Nurse make a home visit to a family having a new baby? Why is it important that a patient who has had a colostomy be referred to the Army Health Nurse and the family interviewed before the patient goes home? Why does an antepartum patient who comes to clinic every month and has no complication but is very

insecure need a visit from the Army Health Nurse? Why should every premature birth be referred to the Army Health Nurse and a home visit made before and after hospital discharge? There is no question in our minds or those in the Preventive Medicine Service. At conferences with medical officers and nurses, where an Army Health Nursing Program was being initiated, there was concern at some of the interpretations of Army Health Nursing that doctors and nurses still retain. Perhaps our role as teacher, counselor, co-ordinator and resource person has not been properly clarified. How can we best do this and thereby enrich our professional relationships?

We can when participating in In-Service Educational Programs and in all professional contacts, place greater emphasis on the prevention and counseling aspects of Army Health Nursing. In the past, at medical installations where there is a dietetic interne program, each dietitian has spent a period of time in the observation of Army Health Nurses' daily activities. It has been my impression that these dietitians gain a far clearer picture of Army Health Nursing than some of our hospital nurses. With consideration now being given to rotating newly commissioned nurses through the various services, the Army Health Nursing Program could be included. It would serve as a two way learning process; the new nurse will acquire an understanding of the program and be able to interpret it accurately to others. It will be a period of professional growth for the Army Health Nurse and as a result a firmer richer relationship will be established between the hospital nurses and the Army Health Nurse.

The art of human relations becomes more proficient as we gain in wisdom and maturity. Difficulties in human relations will never be entirely solved. They will occur throughout life in some degree. The ability to understand oneself and others is a skill which once acquired is unfortunately not permanent, but is a process which modifies and needs to develop continuously to meet changing situa-

tions. Through the utilization of our spiritual resources we gain a greater understanding of the vast possibilities for human interaction.¹⁷ We begin to see more clearly the capacities of men from all walks of life and backgrounds. We may never obtain professional fame for few of us are so gifted. But we can strive to attain a desire to open our minds and hearts to the lives of others, a sense of give and take and a serenity of spirit that only sensitivity and understanding can bring.¹⁸ Once this is attained, we will find that our professional as well as our personal lives will become more creative and increasingly richer.

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Communications and Their Value in Health Nursing*

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THE topic of "Communications and Their Value in Health Nursing" is indeed both a challenging and important one. The scope is broad in nature and hence, in this presentation no attempt will be made to cover it in entirety but rather to present some of the areas in communication which it is felt are important in the field of health nursing.

In a recent publication from the American Nurses Association we are told: "Public health nurses, including school nurses and those in other specialties in public health nursing, work as members of a health team to further community health. They provide nursing care and treatment, health counseling and organize family and community group for health purposes. Their activities include work in the home, the clinic, the office, school or health center. In all phases of the work emphasis is placed on the prevention of disease, the promotion of health and rehabilitative measures."¹

Thus in all phases of her work the health nurse is interacting with people either individually or in groups. Gilbert states "That the unique relationship of the nurse to the patient is the most significant source of strength that the nurse has in her health work."² This dynamic relationship is the medium through which the patient can use her supportive, informational, educational and re-educational services.

Not only is the health nurse interacting with the patient, his family and community but also with her fellow-workers and members of the health team. Interaction is constantly taking place and the participants are evaluating the behavior of all concerned

within the social situations. The learned aspects of social relations, their interactive effect, the expectancies, opinions and estimates we form about the behavior of others—all are inseparably connected with the process of communication according to Lehner and Kube.³

What then is meant by the process of communication? We find various definitions, e.g. (1) "a process whereby one person transmits stimuli of various kinds, usually verbal stimuli or symbols designed to modify the behavior of another person or persons,"⁴ (2) "processes by which people influence one another,"⁵ (3) "the act of transmitting facts, feelings and meanings by words, gestures or other action,"⁶ (4) "the art of developing understanding."⁷

In all of these definitions we find emphasis on the interactive process and the development of understanding. The important aspect is the interaction that occurs between the communicator—the person who initiates the communication and the recipient—the person who receives the communication. It has been suggested that the function of communication includes:⁸

- (a) To receive and transmit messages and to retain information,
- (b) To perform operations with the existing information for the purpose of deriving new conclusions which were not directly perceived and for reconstructing past and participating future events,
- (c) To initiate and modify physiological processes within the body,
- (d) To influence and direct other people and external events.

We may think of communication on the verbal as well as the non-verbal levels. Language is considered the main device through which people communicate but the non-verbal

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methods are probably some of the most powerful tools available when used under the conscious direction of the person using them. These would include the attitudes, thoughts and feelings that we convey either intentionally or unintentionally through such media as posture, gestures, facial expression, vocal tone and inflections.

Ruesch has described the channels of communication as written, pictorial, spoken, gestural, group action, self, odor, touch, visual symbols, sound, action and the arts.⁹ Most of us would agree that dance, sculpture and painting are highly symbolic examples of communication and often convey very subtle cultural meanings. Some feel that speaking, reading and writing are our most important tools for interacting with one another.

What then is it important for us to consider in relation to communication and health nursing? It is readily acknowledged that the nurse interacts with many people during the process of a working day. What does she communicate to those with whom she interacts?

The first factor is what she communicates through her personality, warmth of manner, twinkle in her eye, smile on her face, firmness of handshake, enthusiasm in her voice, and conversation. What is she telling by her silence, her inaction when action should take place and her general behavior? I should like to illustrate this by a personal experience. Some years ago I was assigned the duty of health inspection in a nursery school. Enrolled at this school were twenty youngsters between the ages of three and five years. I spent approximately an hour a day in the school examining the children and thus over the period of a year came to know them quite well. I enjoyed all of the children but there was one youngster, Kathy, a three year old, toward whom I was particularly attracted. Consciously I felt that my actions toward her were no different than toward any of the other children. However, one day in conversation with a parent, I was informed that

Mary Alanna, another three year old, told her mother that Miss Liston loved all of the children but that she loved Kathy the best.

Out of the mouths of children comes the wisdom of the ages. What I actually felt about Kathy very vividly portrayed itself on the non-verbal level of communication.

Certainly to learn to appreciate the meaning of our feelings and actions and what they say to people is of importance for every nurse. What does the nurse's shrug of resignation or doubt mean to the anxious mother concerned about her child? How does the staff nurse feel when the supervisor meets a suggestion with a frown of anger and disapproval? How does the prenatal class react to the nurse instructor who through tonal inflection indicates that she is talking down to them? How does the nursing assistant, aide, or technician feel when we verbalize how important he is and then pass him by in the hall without even a smile of acknowledgment or greeting?

These are some of the ways in which we communicate with our patients and our co-workers without even saying a word.

How then do we use language to convey facts, ideas, feelings and attitudes? The nurse is called upon to give information, not as a specialist but in words and concepts that help people, e.g.—help the expectant mother and her husband feel adequate and informed and increase their courage. Information should put them at ease and really help them learn what they need to know.¹⁰

Two of the important attributes of successful verbal communication include both clarity and continuity. Clarity implies the use of words and sentences when they occur within the frame of reference of common experiences of both or all participants: continuity when language is used as a tool for the promotion of coherence or connection of ideas expressed and leads to discrimination of relationships or connections among ideas and the feelings, event or themes conveyed in those ideas.¹¹

Involved in these attributes is the skill of being able to discriminate when a person

is asking a question whether this requires a direct answer or requires the technique of reflecting back in order to give the person an opportunity to express his feelings. On many occasions we miss clues and cut off communication by giving a direct answer. This is vividly shown in the patient who asks the nurse, "do you think I will come through the operation" or "if I go to the hospital will I ever come home again?" If the nurse gives a direct answer such as, "why, of course, you will," the communication may be cut off. Whereas if she expressed, "You are concerned about going to the hospital," this gives the patient an opportunity to express how he really feels about the impending hospitalization.

Language is used to express conceptions, to describe experiences, to point to or signify other realities. It may also be used to avoid conveying conceptions or feelings, that is, to prevent communication. This may be seen in the psychotic who uses the "word salad" essentially to prevent communication. Hall suggests that in the use of language there are some obstacles to effective communication that must be kept in mind.¹²

1. Words mean different things to different people—professional people may have a jargon or glossary of their own. To communicate successfully we must keep our audience in mind—plain talk.
2. Misinterpretation—must consider what will the other fellow think I said, not what do I mean to say. What we do not say—silence may be misinterpreted.
3. Other peoples' suspicion of our motives.
4. Our audience may be emotionally upset or unreceptive to anything that we say.
5. If insight into situations is not achieved there are immediate obstacles to desirable communications.
6. May fail to recognize sufficiently the difference among individuals.

Thus we may say that the art of verbal communication among two or more persons depends not so much upon specific techniques as it does on a clear conception of what is to be communicated and a willingness to listen

to what this sounds like to another person from his frame of reference.¹³

The public health nurse has an excellent opportunity for improving her verbal communication through the use of the interview. Greenhill describes the interview as a goal-directed method of communication and suggests the following principles.¹⁴

1. Give the patient the initiative.
2. Use the indirect approach—move from the periphery close to the center.
3. Interview should be as open-ended as possible.
4. Interviewer uses minimal verbal activity.
5. Encourage spontaneity.
6. Should facilitate expression of feelings.
7. Must focus on areas which are emotionally charged.
8. Movement depends upon picking up verbal leads, clues, or signals from the patient.
9. Data must come from the content of the interview itself.

The nurse has the opportunity for interviewing the patient, his family and her co-workers and through the use of interview can greatly facilitate her interaction. What then are some of the techniques of communication that we use in the role of the nurse?¹⁵

Approach—how we meet our patient or co-worker. On the verbal level this would include the tone of voice and the choice of words. It may also include physical contact such as extending our hand in greeting or helping an elderly patient to rise from a chair. The nurse will have to evaluate desirability of physical contact, e.g., some patients cannot accept physical contact as this is a threatening experience for them. One may see this in the reaction of a psychotic patient.

Advice—not too effective as a therapeutic tool. If accepted and acted upon seems to foster dependence. In turn may serve as a springboard for projection blame in the future. It may be helpful in relieving acute anxiety but even here it is purely supportive and the relief is only temporary.

Suggestion—includes both encouragement and reassurance. This should always be positive. The selection of words is important as is the awareness of non-verbal clues.

Listening—being able to accept periods of silence and concentrating on what is being said and the feeling that is being communicated rather than what we are going to say when the opportunity arises.

Many of us seem to have difficulty in assuming the role of a good listener. We have a tendency to monopolize conversations and thus do not give the person with whom we are conversing an opportunity to express his thought, feelings, and ideas. Being a good listener is a preliminary step toward establishing rapport with a patient or co-worker. One-half hour spent really listening may give us clues to problems that we had not thought existed. *Recording*—writing down of data so as to facilitate communication. Data that are clearly and concisely written can be of immeasurable help in working with the patient and his family. Many nurses feel that the members of the health team do not sufficiently use records and reports. As a result we see disinterest and laxity in the keeping of records. This would include both adequacy and recency of information recorded.

Some of the mechanical techniques we use are reports, memoranda and bulletins. However, these seem to be valueless if used alone but can be helpful if preceded or accompanied by verbal communication. Many an administrator bombards his staff with memoranda and bulletins without accompanying interpersonal contact. As a result the memos are tacked on the bulletin board or stuffed in the office desk without being read. The attitude the staff assumes becomes—"Oh no, not another one!" It makes a great difference as to how the directives from top management are interpreted to personnel and how the suggestions from the latter are interpreted to top management, e.g., suggestion boxes.

The use of the group conference technique is an excellent way of facilitating effective communication and within most organizations is a common method for communica-

tion. There are nursing conferences, health team conferences, parent-teacher-nurse conferences, and so forth. While the group may help to solve problems, it can also frequently prevent them from occurring. It is important that we study the organizational structure within which we work and examine the role and function of group members in order to obtain valuable clues to the inhibiting or facilitating factors in communication.¹⁶ Were we to do this we might discover some of the factors that inhibit good team functioning. Among members of the health team we find feelings of status, prestige, superiority, inferiority, and anxiety which may block communication. Among members of the nursing team feelings of anxiety, rivalry, competition and ill-defined roles can inhibit effective communication.

In the vertical system of communication how does the supervisor or the chief nurse relate to her staff? Is it purely through the media of writing or does she provide an emotional climate wherein people feel free to put their ideas on the conference table for all to hear, examine and evaluate? Does she see her workers as human beings with individual differences and needs? Just as she regards her nurses so too will the staff regard their patients. Many people bitterly complain about the breakdown in channels of communication and yet fail to look to themselves and to their role in the problem.

How free is the nurse to say what she really thinks in a health team conference? Much will depend on her own personal and professional development but also much will depend on interdisciplinary team relationships.

The factors of proper timing, insight-sensitivity to know exactly when to say something to somebody to get maximum value from your communication and our attitudes are powerful elements in effective communication. How many times do we indicate in our health teaching with a patient that we have taught the procedure previously but will do it again only because the doctor or supervisor says we have to. Thus, we imply that

our teaching was ineffective due to the patient's inability to learn rather than to our inability to effectively communicate.

The nurse has responsibility for health education through the medias of organized instruction with groups; personal instruction of the individual and through the use of audio-visual aids such as pamphlets, posters, booklets, etc. In her role as health educator, her ability to communicate effectively is of paramount importance.

Some of the ways we can overcome obstacles to effective communication are:

1. Try and really know our patients, the family and co-workers.
2. Assume when indicated the role of the leader rather than the role of a boss.
3. Be good listeners—develop this skill.
4. Encourage group decision based on knowledge, understanding, and insight.
5. Foster mutual respect among co-workers, patients, and families.
6. Include an explanation with all orders or directions.
7. Do unto others as we would have them do unto us.

The closing suggestion actually sums up in essence the main theme to be conveyed in this presentation. Communication is the art of understanding. If we can but try to understand and our fellow-men, we shall be able to communicate effectively.

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"The profession (of medicine) in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own." SIR WILLIAM OSLER.

The Public Health Nurse: Coordinator*

By

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AS THE health of our nation improves, we in the health professions face increasingly complex problems in providing service to people. Rampant communicable disease is apt to be simpler to control than is mental illness; preventing maternal deaths is simpler than preventing harmful child rearing practices; control of rank nutritional deficiency is simpler than the control of alcoholism or obesity. We are committed to the concept of comprehensive care—to an integrated, aggressive approach to the physical, emotional and social health problems of people.

We expect that the man with a cardiac impairment will be treated with technical proficiency that will keep the heart functioning as well as it possibly can. But to do this, we must consider not only the damaged heart but also John Jones whose heart it is. We must see hospitalization as it affects the integrity of his personality and his position in the family as well as how it affects the heart muscle. We must know what pattern of hospital-home-on-the-job care will best suit this particular man who has a particular kind of family and neighbors, who works in a particular kind of job, who has his own particular reaction to dependency, his own particular economic problems. It may require help from the social worker, the psychiatrist, the nutritionist, the occupational therapist, the personnel worker, as well as the traditional team of physician and nurse.

The services of a multitude of agencies and personnel must be carefully coordinated, so they work smoothly and effectively in helping the individual or family to cope with

their health problems, whether these be care of illness or injury, prevention of disease, rehabilitation, or promotion of health.

This broader and deeper concept of the meaning of health, and the concomitant sweeping changes in professional education is changing the role of many agencies and professional disciplines. The private physician is increasingly giving his attention to preventive and health promotional activities as well as to curative care; hospital stays have been shortened so they often represent a relatively brief or intermittent interlude in care. The patient may be discharged while he is still sick, but no longer requires the concentration of skills and equipment found only in the hospital. The out patient department is rapidly enlarging its scope in health education—a task hitherto largely relegated to other community agencies.

Perhaps no change in role is as dramatic as that of the patient and his own reference groups. On the one hand he is bombarded with health information from many sources of varying reliability. On the other hand, the care he must accept is apt to be as dependent on changes in ways of living as upon medical treatment. Often these changes are threatening—they may be in conflict with his culture, with his concept of himself, or his entrenched habits. If we return to the cardiac patient he may have to face not only surgery and extended medical treatment, but also letting his wife support the family, revising his concept of himself as a totally independent strong man. He may have to learn new rhythms of work and rest that require self discipline. The efforts of the patient and of his family and friends must be enlisted, and so related to the efforts of professional workers that each supplements and enhances the others.

The public health nurse—in the commu-

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nity agency, hospital or army health service—is often the professional worker closest to the patient and family. She is expected to have the “know how” to mobilize and coordinate the efforts of all those who are involved in care.

The problems of the public health nurse as a coordinator may be considered under these general headings:

1. The process of coordination
2. Personnel-organization and relationships
3. Mechanics of coordination

THE PROCESS OF COORDINATION

The *purpose* of coordination is to see that the efforts of everyone involved in the care of a health situation are secured at the proper time in the proper amounts within the limits of feasibility, and are so related that the goals for care are unified and the services provided are unduplicated, comprehensive and uninterrupted.

The realization of this purpose involves several processes:

- (1) Recognizing and appraising human needs arising from a health situation.
- (2) Motivating and guiding families in the use of available facilities.
- (3) Sharing information, ideas and judgments.
- (4) Channeling and effectuating mutual services.

Recognizing and appraising human needs arising from health situations. One of the fascinating things about studying the health needs of people is that “need” is such a relative term. What is a “need” to one family, may not represent a need at all to another family with the same diagnosis and the same physical and economic resources in home and community. For example, one young woman on an army post who is having a third baby may have many needs requiring the help of professional personnel or health agencies. Perhaps she is unusually dependent upon her parents, now far away, and needs support as she learns to be more independent. She may be harassed by the

care of the other children, and fear the addition of another child, or may be experiencing some problems of marital adjustment that are being reflected in general anxiety or physical discomforts. Another wife, also having her third baby and away from her home community may need much less. She may accept motherhood with relaxed gaiety, and even if the pregnancy was not planned may accept it without resentment with the support of her husband; her need for community care may be minimal.

Nurses’ concepts of need will also vary widely even in virtually identical situations. The nurse who has had no special interest or preparation in physical rehabilitation may fail to see needs that would be obvious to a nurse with greater knowledge. The nurse who has had cancer herself or has experienced it in her immediate family, may recognize diagnostic needs not noticed by others. The nurse with public health training may be sensitized to epidemiologic indications of need.

To recognize and appraise needs requires a persistently patient centered approach to nursing that permits seeing the problem as a whole in its relationship to the individual and his family. It also requires a high sensitivity to potential needs, based on a deep and comprehensive knowledge of the possible contribution of nursing and related services. While in-service education helps, continuing self-education is fundamental.

Motivating and guiding families in the use of available facilities. Having accepted the premise that coordination involves the patient and his family as well as professional workers and agencies, it becomes apparent that the family must not only accept the medical services of different agencies, but must also be active participants. They must recognize the relationship between the services of the various groups involved and the goals and responsibility of the patient and family.

It is important, too, to accept the fact that the individual or family has a right to reject the care offered, provided there is no danger to others. The nurse’s job is to be

sure he understands the facts upon which his decision should rest—not to make the decision for him. The patient and his family should want the service and be prepared to participate in it.

Guiding families in getting to the right person or agency, in understanding the limitations of service available, in making necessary plans for transportation and for family or home adjustments will do much to facilitate coordination. It is also an important factor in saving professional time, since the properly instructed and motivated patient is ready to benefit from the service he seeks and does not require "selling" the service to him.

Sharing information, ideas, judgments. Coordination is much more than delineating shared services. When more than one professional worker or agency shares responsibility for care, each needs to know what the other is doing or planning. Through correspondence, sharing newsletters, policy statements, or occasional inter-agency visits the public health nurse should keep informed about changes in policy or program, in the hospitals or other agencies with whom she works. Through agreed upon referral systems, making case records available to one another, or multiple recording that permits visit-by-visit inter-agency reporting, or scheduled case review conferences, each should keep abreast of action in relation to specific families.

Equally important is the sharing of ideas and judgments—about the validity or usefulness of certain types of service, about the plan for a particular family, about trends a particular service might take in the future. Occasional case evaluations, or problem discussion sessions (even "gripe" sessions), or periodic review of the status of programs in which more than one agency is involved also help provide the stimulation to creative thinking that may lay the groundwork for new patterns of coordinated effort.

Channeling and effectuating mutual services. Devising ways in which information sharing and referral can be effectively accomplished, exchanging case or service re-

ports, setting up agreements regarding respective obligations of the various agencies involved will help get the job done without confusion or delay. Sometimes it is desirable to have a single channel for referral of cases. In this way the referring agency always knows just whom to call, and it is not necessary to have every nurse in both agencies know and work directly with every other nurse. In one rural town the public health nurse, supervising nurse from the community hospital, and social case worker met at lunch once a week and arranged the necessary care for families known to more than one of the group.

The process of coordination, then, involves a combination of applying interpersonal relationships and coordinating procedures, directed toward development of mutually acceptable philosophy and shared judgment as well as efficient referral and division of responsibility among agencies.

PERSONNEL-ORGANIZATION AND RELATIONSHIPS

Every public health nurse, every hospital nurse, every nurse in a physician's office or industry is involved in some measure with securing coordination of nursing and related services for patients. However, in large institutions or agencies, the responsibility for coordination of inter-agency efforts may be vested in one person or in a separate staff.

The public health nurse coordinator in the hospital, for example, may take responsibility for channeling all referrals to other agencies; for securing intra hospital agreements or policies governing referrals; for attending community conferences or meetings to develop procedures or forms, or to discuss problems. She interprets to the hospital staff the services available to them for extra-hospital care; she interprets to the community agencies the particular needs and problems of the hospital and informs them of changes which may affect home care. For example, if a new teaching program is to be developed in the hospital outpatient clinic, the Department of Health

home care program may need to be modified. The public health nurse coordinator also arranges for joint meetings, conferences, and case reviews as necessary to maintain good liaison with community agencies.

The public health nurse coordinator in the hospital also brings to the total nursing staff knowledge of developments, programs or procedures in public health nursing that might affect hospital nursing care. For example, knowing that the obstetric patient referred to the VNA may be taught relaxation exercises if approved by the attending physician may result in greater emphasis on "natural" childbirth approaches in the hospital, or changed policies that allow the husband to be present and help at delivery.

Similarly, large public health agencies may channel all hospital referrals through a single person, or through a small number of designated supervisors. In this case the roles are revised and the public health nurse takes responsibility for interpreting hospital policies, program and developments; and for indicating situations that suggest needed change in community nursing to bring it in line with hospital care.

However, it is important to note that designating a coordinator does not shut off communication and joint planning among nurses actually providing care to patients. The hospital nurse and the community nurse responsible for a particular family need to talk over patient care needs and nursing care plans. In some hospitals the actual referrals are handled by the nurse assigned to the particular patient, with the coordinator helping each staff nurse to use community services wisely. This nurse to nurse contact is particularly effective in securing highly individualized case planning.

Sometimes other disciplines are concerned with referral or interagency case planning, such as the physician, the social worker, or rehabilitation worker. When this is true, it should be recognized that nursing service should have the primary responsibility for diagnosing nursing need, and for determining the appropriate receiving agency or per-

son. The physician and he alone determines the medical care pattern which affects nursing needs, but it is unrealistic to expect him to have the necessary knowledge to decide whether or not community nursing care is needed, or which of several agencies will be most helpful.

MECHANICS OF COORDINATION

However good the intention, without adequate machinery—policies, procedures, forms, follow-up—coordination suffers. These should be such that they provide a firm base of agreement, for prompt referral, and so they minimize the time and cost demands, particularly among professional personnel. Coordination procedures may be developed on a community wide basis—with all agencies agreeing to use standard referral forms to develop descriptive statements of their services to facilitate selective use; to arrange work conferences of studies to discuss problems or review procedures. This unification of procedure simplifies referral because all do it alike, and because it focuses the attention of a larger group on developing patterns it may produce a more finished result.

When agencies differ very greatly in services, clientele or patient capacity it may be necessary for groups of two or more agencies to work with each other on their special situations rather than develop a community wide scheme.

Whatever the pattern for developing a plan for coordination of services it is important to involve nurses with direct responsibility for patient care as well as supervisory or administrative staff, and also other disciplines that are involved in patient care.

They have been used quite commonly for planning care of the tuberculosis patient.

Such case conferences may be scheduled prior to hospital discharge, or shortly after admission to the hospital, or at a point when care has been given over a period of several weeks and to appraise progress and to re-plan. They may include representation of different disciplines and agencies giving care

and of the family; each correlating his experience with that of the others.

Obviously individual inter-agency, inter-discipline conferences cannot be arranged for all patients, however desirable it might be theoretically. Sometimes using one individual case as a basis may make it possible to work through the broad outlines of inter-agency patterns of care for a categorical group of patients. For example, a few rheumatic fever cases might be discussed periodically and on the basis of this discussion the general approach to care of all rheumatic fever cases might be thought through.

This, "for instance" approach has an advantage over thinking through the various aspects of care theoretically in that the "feeling for" the service is more clearly revealed and also the practical snags in implementing the program are more apt to be foreseen in the course of the discussion. For example, in a general discussion it might be agreed that the doctor, nurse and mother would sit down once a month to discuss the child's progress. In discussing a specific case and pointing out the difficulty of getting this particular doctor to meetings at a specified time the problem of general feasibility of the suggestion may be raised and the procedure reconsidered.

REFERRAL FORMS

The development of satisfactory inter-agency referral forms justifies serious consideration. Several suggested forms have appeared in the recent literature, but each community is apt to have special problems that would probably warrant an individually developed form.

These forms may vary from very detailed and comprehensive reports to very simple ones. A good form

- (1) Contains only that data which is essential for mutual understanding and information;
- (2) Contains essential information in such a form as to be readily transferable to the receiving agency's record. Gummed reports that may be attached

to a record have been useful in some cases.

- (3) Requires no information or clearance procedure that will delay referral or that might be more readily communicated in a personal contact between workers.
- (4) Indicates clearly what services and follow-up are requested.

PATIENT CARE PLANNING

Patient care may be planned individually for each patient; for categorical groups, such as prenatal patients or psychiatric patients; or on the basis of broad general agreements about the type of care to be rendered by different agencies in the community. Individual case planning and case evaluation conferences may be necessary when patient care requires the concurrent action of several disciplines or when there are deep seated problems. They are also helpful when new programs are being developed.

Another type of categorical case planning might revolve around discussing a representative sample of cases under care. From this discussion (necessarily more cursory than the type referred to above) may come suggestions for procedures or for allocation of responsibility for specific aspects of care.

Sometimes even more general planning is indicated, when handling of the case load as a whole is discussed. Here the types of service to be rendered by each agency or worker are discussed in relation to the varied case load. On the basis of this, plans may be made for timing the post-hospital home visit, for return to the clinic, for extending, limiting or re-allocating certain phases of care.

The public health nurse, whether or not she is designated as a public health nurse coordinator, must contribute to coordination of services of a great many disciplines and of the hospital and other community agencies. Good coordination must rest on the conviction that good patient and family care is the reason for all nursing procedures, and that professional service lines cannot be so sharply drawn as to fractionate care or

render it less comprehensive or effective. Careful planning, free and frequent discussion—preferably face to face—and well developed written agreements help promote good coordination.

Properly carried out inter-agency and inter-professional action to help people can let the patient and his family know that the community is concerned about him as a person. Perhaps in our democratic society this in itself is a significant contribution.

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AWARDS TO BE PRESENTED NOVEMBER 19 AT THE 65TH ANNUAL CONVENTION

Sir Henry Wellcome Prize	Lt. Col. Carl W. Hughes, MC, USA
Honorable Mention	Capt. C. Davis Belcher, MC, USNR
Gorgas Medal	LCdr. John H. Ebersole, MC, USN
Major Louis Livingston Seaman Prize	Col. Rollin L. Bauchspies, MC, USA
Stitt Award	Capt. George L. Calvy, MC, USN
McLester Award	Col. William H. Lawton, USAF(MC), Ret.
Founders Medal	W. Edward Chamberlain, MC
	Col. George B. Green, USAF(MC)
	A. B. C. Knudson, M.D.
	Med. Dir. Byron J. Olson, USPHS
Sustaining Membership Award	Ralph D. Lillie, M.D.

A Safe, Effective Local Anesthetic in Dentistry

By S. WILLIAM SIMON, M.D.;† ALFRED B. BEARD, D.D.S.;‡
AND DAYTON W. WILLOUGHBY, D.D.S.§

SUBSTANCES used as local anesthetics in dentistry have been responsible for numerous cases of sudden death probably due to hypersensitivity. Some of these compounds cross-react and others do not. Many of the drugs contain an amino group in the para position of the benzene ring, which forms the figure of the para-aminobenzoic acid radical upon which highly antigenic compounds are constructed. Sensitization to this group may be acquired from non-therapeutic agents with the same basic chemical configuration, such as the azo-dyes encountered in colored food stuffs.¹

Three types of reactions have been described to procaine: toxic, circulatory and allergic. Any of these may be mild, moderate, severe or fatal.⁴

While added epinephrine causes local vasoconstriction and prevents too rapid absorption of the procaine solution, it is not without some danger in patients suffering from hypertension or coronary insufficiency due to its generalized vasoconstriction and pressor action.

During the past few years, an accumulation of clinical evidence has indicated that tripeleppamine, an antihistamine, has marked local anesthetic properties, is well tolerated, practically non-toxic, and safe to use.

Sensitivity is very rare and the literature reveals no cases of death from parenteral injection. The local anesthetic properties were known⁶ and demonstrated⁸ as early as 1939. More recently, pharmacological and clinical experiments have shown that the antihista-

mines have definite advantages over the most commonly used drugs for local anesthesia.

Landau,⁶ in a recent report, stated that in human skin "antihistaminic compounds had . . . from 2.4 to 4 times as much anesthetic effect as procaine" Yonkman,¹¹ Betcher,² Kutscher,⁵ Stephen,¹⁰ Brown,³ and many other investigators have used antihistamines for local anesthesia in dentistry, gastroscopy, urology, surgery and related fields.

The local anesthetic properties of tripeleppamine were accidentally discovered by Renick and her co-workers⁷ during early tolerance studies. Holding tripeleppamine crystals between the lips resulted in anesthesia of the medicated area within three to four minutes. In most instances, this effect lasted for fifteen to thirty minutes. Yonkman et al,¹¹ in a later study, produced anesthesia in the exposed sciatic nerve of the frog by applying cotton pledgets soaked with a two percent solution. To date, the use of this antihistamine in dentistry has been more or less limited to topical application or oral administration for the reduction of postoperative edema, for sedation, prevention of local drug sensitivity and to help hasten healing through its antihistaminic effect.⁵

We decided, therefore, to perform a double blind study in order to evaluate the effectiveness and safety of tripeleppamine as a local anesthetic agent.

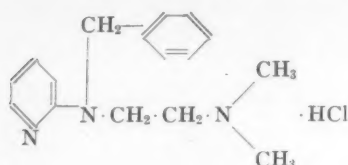
Tripeleppamine, chemically, N,N-Dimethyl-N'-benzyl-N'-(alpha-pyridyl)-ethylenediamine monohydrochloride, is a white crystalline powder which is stable, non-hydroscopic, and readily soluble in water. The pH of aqueous solutions varies between 6.56 (ten percent solution) and 6.71 (two and a half percent solution). It has a molecular weight of 291.2. Solutions are stable indefinitely at room temperature and can be reesterilized by heating without loss of potency.

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Its structural formula is:



METHOD

The solutions under investigation were one percent and two percent aqueous tripelennamine* without epinephrine and a standard two percent procaine with epinephrine solution. Carpules were marked "A", "B", and "C" and the contents were revealed to us only at the conclusion of the investigation. A total of 90 patients, ranging from 25 to 72 years of age, were included in the study.

RESULTS

Tables 1, 2, and 3 illustrate our findings.

In these tables the term "block" refers to anesthesia obtained by injecting the solution next to the nerve as it passes through soft tissue. "Infiltration" anesthesia was obtained by depositing the solution in the mucoperiosteum opposite the apex of the root so that it infiltrates through the alveolar plate of bone to reach the nerve. The combination of "block" and "infiltration" was used in those cases where an anastomosis of nerves had to be treated.

Although the numbers in each group are small, it is noted that two percent tripelennamine and two percent procaine with epinephrine gave very satisfactory block anesthesia. One percent tripelennamine was apparently slightly less effective. In infiltration anesthesia the two percent procaine with epinephrine was superior to one percent tripelennamine which in turn was superior to two percent tripelennamine. The same conclusions followed in those cases where a

*Pyribenzamine® Anesthetic Solution supplied through the courtesy of CIBA Pharmaceutical Products Inc., Summit, New Jersey.

TABLE 1
ONE PERCENT TRIPLENNAMINE—TOTAL OF 30
PATIENT VISITS

	Block	Infiltration	Infiltration & Block
Good	4-80 percent	7-61 percent	7-58 percent
Fair	1-20 percent	5-32 percent	3-25 percent
Poor	0-0 percent	1-7 percent	2-17 percent

TABLE 2
TWO PERCENT PROCAINE WITH EPINEPHRINE—
TOTAL OF 46 PATIENT VISITS

	Block	Infiltration	Infiltration & Block
Good	6-100 percent	25-96 percent	14-100 percent
Fair	0-0 percent	0-0 percent	0-0 percent
Poor	0-0 percent	1-4 percent	0-0 percent

TABLE 3
TWO PERCENT TRIPLENNAMINE—TOTAL OF 14
PATIENT VISITS

	Block	Infiltration	Infiltration & Block
Good	4-100 percent	1-17 percent	1-25 percent
Fair	0-0 percent	2-33 percent	1-25 percent
Poor	0-0 percent	3-50 percent	2-50 percent

combination of infiltration and block was used. It was also noted that a great amount of blood was present in the operating field when one percent or two percent tripelennamine was used. No adverse reactions were noted during or after the operation regardless of the anesthetic agent used.

It naturally occurred to us to calibrate the value of the use of the 1:50,000 epinephrine added to the anesthetic solution, so another series of patients was selected in which two percent procaine without epinephrine and one percent tripelennamine with epinephrine were used.

The two percent procaine solution without epinephrine was about as effective as the one percent solution of tripelennamine without

epinephrine and a bloody operative field was also noted. Nerve blocks were fairly effective but infiltration was very unsatisfactory.

When one percent tripeleppamine with epinephrine 1:50,000 was used, the results were excellent in infiltration and the operative field was as dry as with the two percent procaine with epinephrine. Table 4 illustrates the results on some of the patients so treated:

Every patient receiving a nerve block with one percent tripeleppamine with epinephrine added had good anesthesia. These were indistinguishable from the nerve blocks in which two percent procaine with epinephrine were used. Induction time, length and adequacy of anesthesia were approximately the same. There were no side reactions.

DISCUSSION

After the original blind study was completed, the additional patients were selected for the use of infiltration anesthetic exclusively. This was done to determine the effect, if any, of the added epinephrine to the anesthetic solutions. It was observed from the original series that one percent tripeleppamine could be used where the "caine" compounds were contraindicated and that good results might be expected in nerve blocks, but only fair results in infiltration or infiltration and block. If epinephrine was the deciding factor and was not contraindicated due to cardiovascular disease, there could be no harm in it being added to the tripeleppamine solution. When used, it also provided a drier operative field. One percent tripeleppamine with epinephrine 1:50,000 produced

TABLE 4

ONE PERCENT TRIPLEPPAMINE WITH EPINEPHRINE
—TOTAL OF 16 PATIENT VISITS

	Infiltration
Good	16-100 percent
Fair	0- 0 percent
Poor	0- 0 percent

Induction time averaged four minutes and ranged from three to eight minutes.

anesthesia by nerve block, infiltration or a combination of nerve block and infiltration in approximately the same length of time, lasted as long and was just as effective as was the two percent procaine with epinephrine.

We are not recommending that procaine or other "caine" derivatives be discarded in favor of tripeleppamine but where doubt exists as to the patient's sensitivity to drugs of any kind or where there is an allergic background, it would be safer to use the one percent tripeleppamine with epinephrine. If epinephrine is contraindicated, as good results may be expected using plain one percent tripeleppamine as in using plain two percent procaine.

SUMMARY AND CONCLUSIONS

One percent tripeleppamine with 1:50,000 epinephrine added is an effective local anesthetic which may be used in block, infiltration or a combination of block and infiltration and may be expected to give as good results as two percent procaine with epinephrine. In drug sensitive and allergic patients it would be a great deal safer.

We are hopeful that others will repeat and enlarge on our work because only after several thousand injections have been given can any definite conclusions be drawn. It is our intention to continue this project with a much larger series of patients.

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PROMOTIONS



U. S. Army Photo

(L to R) 1st Lt. Floyd L. Wergeland, Jr., MC, USA; Maj. Gen. James P. Cooney, Deputy Surg. Gen., Army; Brig. Gen. Floyd L. Wergeland, Director, Office for Dependents' Medical Care, having the stars pinned on; Mrs. Floyd L. Wergeland.



U. S. Army Photo

(L to R) Lt. Gen. S. Meloy, Commanding Fourth U. S. Army; Maj. Gen. Elbert DeCoursey, Commandant Army Medical Service School, having the two stars pinned on; Mrs. Elbert DeCoursey.

The Commanding Officer of the Landstuhl Medical Center, Germany, John L. Crawford, Medical Corps, U. S. Army, was promoted to the rank of brigadier general on October 8, 1958.

Chemotherapy of Specific Infectious Diseases of the Lower Respiratory Tract*

Report of Committee on Chemotherapy and Antibiotics American College of Chest Physicians

THE MAJORITY of pulmonary infections can be successfully treated by the judicious use of antibiotics and other chemotherapeutic agents. It is important to establish a diagnosis of the type of infection in all infectious diseases of the respiratory tract. Cultures should be made prior to therapy whenever feasible. Sensitivity tests of the organisms found in all prolonged infections are essential guides in the care of the patient. It is sometimes difficult to make an exact bacteriological diagnosis at the onset of a pulmonary infection, and treatment may have to be started at once. A simple Gram's stain of a fresh sputum specimen is important in determining the type of therapy while awaiting the cultures. If the diagnosis is still obscure and the patient has a severe infection, therapy designed against both gram-positive and gram-negative organisms should be instituted. Obviously all other clinical guides will be useful, such as the manner of onset of the disease, the characteristics of the sputum, the white count, the cold agglutinins, etc. Treatment should be vigorous and should be continued until all signs of infection have cleared. This is important to prevent development of chronic disease of the lungs and bronchi.

CLASSIFICATION OF PNEUMONIAS

I. Bacterial

- a. Pneumococci
- b. Streptococci
- c. Staphylococci
- d. Klebsiella Pneumoniae
- e. Hemophilus Infections
1. Pertussis

* Reprinted from "Diseases of the Chest," official journal of the American College of Chest Physicians, Volume XXXIII, Number 4 (page 435), April, 1958.

2. H. Influenzae
 - f. Pasteurella Infections
 1. Pasteurella Pestis
 2. Pasteurella Tularensis
 - g. Coliform, Proteus and Pseudomonas (gram-negative bacilli present in the intestinal tract)
 - h. Salmonella Group
 1. Typhoid
 2. Paratyphoid A.B.C.
 - i. Brucella
 - j. Anthrax
 - k. Glanders
- II. Viral (Known and Probable)
- a. Psittacosis
 - b. Influenza A & B
 - c. Variola
 - d. Varicella
 - e. Rubella
 - f. Lymphocytic Choriomeningitis
 - g. Primary pneumonitis of infants
 - h. Infectious mononucleosis
 - i. Erythema Exudativum Multiforme
 - j. Primary atypical pneumonia
- III. Rickettsial
- a. Typhus
 - b. Rocky Mountain Spotted Fever
 - c. Q Fever
- IV. Mycoses (Producing a pneumonia-like picture)
- a. Actinomycosis
 - b. Nocardiosis
 - c. Blastomycosis
 - d. Coccidioidomycosis
 - e. Histoplasmosis
 - f. Moniliasis
 - g. Cryptococcosis
 - h. Aspergillosis
 - i. Geotrichosis
 - j. Penicilliosis
 - k. Sporotrichosis

TREATMENT OF PNEUMONIAS

I. Bacterial Pneumonias

Pneumococcal Pneumonia. Penicillin is the drug of choice in the treatment of pneumococcal pneumonia. It is best given by the intramuscular route, using 300,000 units of aqueous penicillin every three to four hours, or 600,000 units of procaine twice daily. Oral penicillin is not advised except in mild cases. Therapy is continued until the temperature has been normal for three days. Larger or smaller doses may be used depending on the severity of the disease. The sulfonamides are highly effective in the treatment of pneumococcal pneumonia. The dosage is 6 to 8 gms. daily. The broad-spectrum antibiotics, including tetracycline, chloramphenicol and erythromycin are all effective, but should still be considered second to penicillin.

Streptococcal Pneumonia. Treatment of streptococcal pneumonia is the same as that of pneumococcal pneumonia.

Staphylococcal Pneumonia. Treatment of staphylococcal pneumonia requires considerable care in view of increasing development of staphylococcal resistance to most antibiotics. Sensitivity tests should be made early. If the organism is penicillin, two to four million units daily should be given and no other antibiotic need be given with it except perhaps streptomycin. If the organism is penicillin resistant and susceptible to erythromycin or novobiocin then one or the other of these drugs should be used. Vancomycin, which is not yet on the market, is an excellent bactericidal agent for staphylococci and should be used if the organism is resistant to other more readily available drugs. In the seriously ill patient who is not responding to the prescribed therapy, bacitracin in doses of 25,000 units every six hours should be added. The nephrotoxic potentialities of bacitracin must be watched. Treatment of staphylococcal infections should be prolonged for three or four weeks.

Klebsiella Pneumonia. Test of susceptibility should be performed but usually this

type of pneumonia is best treated by streptomycin 2 to 4 gms. daily plus one of the tetracyclines in 4 gm. dosage initially. After response to therapy the dosage may be lowered. Sulfadiazine has also been quite effective in conjunction with streptomycin. Treatment must be continued for several weeks because of the severity and chronicity of the disease. The potential toxicity of streptomycin when used too long must be kept in mind.

Hemophilus Infections. Chloramphenicol or tetracycline in doses of 2 to 4 gms. daily are effective in both pertussis and H. influenzae infections. Sulfadiazine or streptomycin should be used in combination in the serious case.

Pasteurella Infections. Sulfadiazine, streptomycin, chloramphenicol and tetracycline have all proved effective in the treatment of plague pneumonia. Streptomycin is the drug of choice. Streptomycin is the ideal agent in the treatment of tularemic pneumonia in dosage of 2 to 4 gms. daily. The broad-spectrum antibiotics are also effective.

Coliform, Proteus and Pseudomonas Group. This group is becoming increasingly important as a result of antibiotic therapy. Sensitivity tests must be done to find the most effective drugs. The organisms may be sensitive to the broad-spectrum antibiotics, sulfadiazine and streptomycin. A tetracycline may be sufficient for the coliform and proteus types of pneumonia if the organism shows susceptibility to these agents but combinations of antibiotics are usually necessary. If these organisms are resistant combination of tetracycline and streptomycin in full dosage should be tried. If response does not occur penicillin, in large doses, in combination with chloramphenicol should be tried. In resistant infections polymyxin may be used with a tetracycline. Polymyxin is the drug of choice for pseudomonas pneumonia. The drug is both nephrotoxic and neurotoxic. It should be used with caution. In general, infections by this group respond poorly to all antibiotics.

Salmonella Group. The typhoid bacillus is a rare cause of pneumonia Chloramphenicol

2 to 4 gms. daily followed in a few days by 1 gm. dose is specific. In the other *Salmonella* infections, chloramphenicol or one of the tetracyclines may be used.

Brucella Infections. *Brucella* infections are best treated by a combination of tetracycline, $\frac{3}{4}$ gm. every six hours in combination with streptomycin 1 gm. daily for a month.

Anthrax. Pulmonary anthrax is a rare complication of anthrax but when present is a very serious and fulminating disease. The tetracyclines are the drugs of choice, though penicillin and the sulfadiazines have also been used successfully.

Glanders. Lung lesions occur in about one-quarter of the glanders cases. Sulfadiazine and streptomycin are effective in the treatment of glanders. The broad-spectrum antibiotics have also been used successfully.

II. Viral Pneumonias

Psittacosis. The tetracyclines are the drugs of choice using 4 gms. daily for the first two days, followed by a 2 gm. daily dosage. Penicillin has been used successfully.

Virus Influenzal Pneumonia. There is no known specific for influenzal pneumonia.

Variola. Pulmonary lesions often occur in smallpox. There is no specific for the primary disease but because of secondary infections by bacteria appropriate chemotherapy for these infections should be used.

Varicella. Pneumonia occurs rarely. Treatment should be directed to secondary bacterial infections.

Rubella. Bronchopneumonia is a common complication of measles. While there is no specific for the measles virus, superimposed bacterial infections are frequent and can be successfully treated by penicillin or the tetracyclines.

Lymphocytic Choriomeningitis. Pneumonia occurs in lymphocytic choriomeningitis. Treatment is symptomatic.

Primary Pneumonitis of Infants. There is a serious disease in the newborn and premature infants probably due to a virus. There is no known specific therapy.

Infectious Mononucleosis. Bronchopneumonia is a rare complication of infectious mononucleosis. There is no known specific for this disease.

Erythema Exudativum Multiforme (Stevens-Johnson Syndrome). Pneumonia is a common accompaniment of this disease. It appears to be due to a virus which is not affected by any known antibiotic. Steroid therapy has often proven to be helpful.

Primary Atypical Pneumonia. The status of drug therapy of Primary Atypical Pneumonia is still under question. Some observers feel that a tetracycline 0.5 gm. every six hours should be given until temperature has been normal for at least three days, principally to guard against secondary bacterial invaders. Some observers prefer to use no antibiotic therapy in the average case unless there is indication of a secondary infection.

III. Rickettsial Pneumonias

Treatment of all of the rickettsial pneumonias may be combined together. Chloramphenicol or a tetracycline appears to be equally effective. The dosage in severe cases is 1 gm. every six hours for three doses, then 0.5 gm. every six hours until the temperature is normal.

IV. Mycotic Infections

Actinomycosis. Penicillin is the drug of choice, one or two or more million units a day usually along with surgical drainage if necessary. One of tetracyclines may be just as effective. Treatment is continued for at least six weeks and should be kept up long after the lesions have disappeared to prevent a recurrence.

Nocardiasis. Sulfadiazine is the drug of choice for nocardia infections. The broad-spectrum antibiotics may be helpful. The treatment must be prolonged.

Histoplasmosis. At present there is no proven therapeutic agent for this disease, but very suggestive results are being obtained with a new antibiotic, amphotericin B. The drug has been employed in a number of cases

and the incidence of serious toxic manifestations has been relatively low. It has also demonstrated definite therapeutic effect. The drug is very difficult to administer and must be given intravenously in a slow drip over a period of six hours. Approximately 1 mgm. per kilo per day in the usual daily dose and treatment is continued from 30 to 60 days. Under special circumstances the daily dose may be increased to as much as 100 mgm. per day. An oral form of the drug is available, but has not proved to be effective. Immediate febrile complications during therapy are not unusual especially if the drug is given too fast. These effects may be ameliorated by asperin. These reactions have not interfered with the continued use of the drug.

Blastomycosis. 2-hydroxystilbamidine is the most effective agent in the treatment of blastomycosis. Standard daily dose is approximately 250 mgm. dissolved in 250 to 500 cc. of 5 per cent dextrose, and given intravenously. This is given rather slowly over a period of several hours at least. The drug should be used immediately after preparation and the solution should be protected from sunlight. Thirty to sixty days of daily dosage of 250 mgs. is recommended. The drug may be repeated in case of a relapse. Facial neuropathy may occur but is much less frequent than with stilbamidine. Recently amphotericin B has appeared quite effective in treatment of Blastomycosis.

Cryptococcosis. Amphotericin B may be used for treatment of coccidioidal disease.

Moniliasis. Mycostatin is an effective antifungal drug for intestinal moniliasis, or it

can be used locally. It has no effect on the systemic disease as it is not absorbed from the intestinal tract. In systemic moniliasis it is suggested that one of the newer antibiotics be employed, such as amphotericin B.

Cryptococcosis. Amphotericin B may be used. Its effectiveness is still under investigation.

Aspergillosis, Geotrichosis and Penicilliosis. These diseases are refractory to all known antibiotics. Amphotericin B should be tried.

Sporotrichosis. This usually responds satisfactorily to potassium iodide. 2-hydroxystilbamidine should be tried in the refractory case.

STEROID THERAPY

The role of steroids in the therapy of infectious disease is a subject of tremendous controversy. When overwhelming infections cause adrenal insufficiency steroid therapy is indicated. The beneficial anti-inflammatory and "antitoxic" effect of the steroids is opposed by the adverse influence of the steroids on tissue localization of infection. However it is likely that one may accomplish the desirable and prevent the potential harmful effects of steroids by the simultaneous use of anti-microbial agents to which the infective agent is susceptible. On theoretical grounds at least it would be undesirable to use steroid therapy in infections caused by organisms resistant to anti-microbial agents. There appears to be a place for the use of steroids in overwhelming infections not responding to conventional therapy.



EDITORIALS

William C. Porter Lecture

A VERY wonderful event will take place at this 65th Annual Convention of our Association through the courtesy of Smith Kline and French Laboratories of Philadelphia. The "William C. Porter Lecture" to honor a pioneer in military psychiatry has been established and the first lecture will be given in the evening of November 18 at the Statler Hilton Hotel in Washington.

Our lecturer will be a prominent psychiatrist, Doctor Jack R. Ewalt, Commissioner of Mental Health of Massachusetts. He will speak on the subject "Mental Health in the U.S.A.—Facts and Fantasies."

We, like many others, are confused by the multitudinous problems of this generation: atomic and hydrogen bombs, missiles, communism, juvenile delinquency, Quemoy, Space to mention a few. Tensions are created by too much thought on these matters which certainly cannot and must not be dismissed completely from our minds. We in America worry much. So we develop tensions.

There has never been a generation that has not had problems and there probably never will be a problem-free generation. There were plenty of them in the early years of this generation when the young Doctor William Clare Porter completed his medical work and went with the New York State Hospital Service in 1908. Along came World War I and our Doctor Porter entered the Army Medical Corps. He had his experience with "shell shock" cases. His previous experience and knowledge in the field of psychiatry made him an authority in the military service.

During the years to follow in the Army he advanced in the field of psychiatry and when World War II came along with its many psychiatric problems, William C. Porter was chosen to head the School of Military Psychiatry in Atlanta, Georgia. Here many physicians were trained under his supervision.

In June 1947 his military service came to an end but not his career in psychiatry for he continued in that field at the Los Lunas Hospital (New Mexico) as Medical Director and Superintendent, until his death on September 24, 1955 at the age of 69.

From the Board of Directors of that hospital come these words: "His ethical approach to all our problems, his wisdom in planning, his kindness to our patients all marked him as a dedicated leader in Mental Health and Welfare."

On Editors

SOMETIMES we feel like this, too! We quote from the editorial in the *Journal of the Royal Naval Medical Service*, Volume XLIV, Winter 1958, No. 1:

"Amateur editors of this journal do not have an enviable task. They are not given a course in editing and they do not, unfortunately, receive the unanimous support of medical and dental officers. Brickbats arrive from time to time, but very little in the way of constructive criticism or encouragement. However, if they reap scanty rewards on earth, they reap a much more valuable reward in Heaven. The outgoing editors are grateful for permission to publish the following lines* which, they feel confident, apply to all medical editors."

The Editor stood 'for the Heavenly Gate,

His features pinched and cold.

He bowed before the Man of Fate,

Seeking admission to the Fold.

"What have you done," St. Peter asked,

"To gain admission here?"

"I was the *Journal's* editor, Sir,

"For many a weary year."

The pearly gates swung open wide,

As Peter pressed the bell:

"Come in and choose your harp!" he cried;

"You've had your share of H . . . I."

* Quoted at a meeting of the Union Internationale De La Presse Médicale, in London, September 1957, by Professor William Doolin of Dublin.

First Institute of Veterinary Public Health Practice

By

COLONEL MERVYN B. STARNES, VC, U. S. Army
Walter Reed Army Institute of Research, Washington, D.C.

THAT the veterinarian in public health has definitely come of age was apparent during the First Institute on Veterinary Public Health Practice at the School of Public Health, University of Michigan, October 6-9, 1958. This was the consensus of approximately 175 conferees and speakers representing various disciplines of public health medicine who came from 28 states and four foreign countries.

Speakers and conferees presented original papers and participated in committee studies to fulfill the purpose of the Institute which was to: (1) explore, document and expand upon the present and future contributions of all veterinarians to human health and relationships to other public health disciplines; (2) collect and evaluate source materials on veterinary public health practices and administration; and (3) compile and publish a proceedings.

It was concluded that the veterinarian, for a long time, has made and will continue to make contributions to the public health. The military veterinarian was singled out as having contributed substantially both to the military population and civilian health programs related thereto.

It was the firm conviction that all veterinarians, through treatment of lower animals, have a definite responsibility to man, the highest animal. Further, human and veterinary medicine are a part of a larger MEDICINE which is a broad, inter-disciplinary area of operation. It is highly unlikely that practitioners of human medicine will quickly accept this thesis but that it can best be done in the equally broad discipline of public health, for public health is not an official agency or agencies but a concept which treats of the total health of the community of peoples as opposed to medical attention to separate individuals of the community.

The epidemiologist has long accepted the partnership of the veterinarian who always

thinks in terms of the animal herd just as the epidemiologist must think in terms of the human herd. The team approach to recognition and solution of public health problems was concurred in. Acceptance of veterinarians on public health teams presents the question of working relationships. This is no problem but the veterinarian being a newer member of the team calls for discussion of his position, role and relationship to other disciplines in public health.

To achieve the foregoing objectives, among many others, the first Institute was planned. A tremendous amount of effort went into preinstitute preparation of original papers by eminent public health workers. Nearly 100 resource persons representing virtually all the disciplines in public health also contributed.

Among the conclusions were: that the term "veterinary health" is inadequate and that "comparative medicine" is perhaps more acceptable; the career public health veterinarian's opportunities in public health are as broad as his personal abilities; training which enables him to deal with diseases in one animal host qualifies him to help combat disease in the other; graduate training is highly desirable but not until after a period of field experience in public health practice; and, graduate training should be limited only by the capabilities of the student, both in the application and direction of public health programs and related research and teaching.

A better understanding of the inter-relationship of the public health veterinarian with public health physicians, dentists, nurses, and others was advocated by combined meetings, interchange of speakers and the addition of trained and specially qualified veterinarians to faculties of schools of public health and continued education courses.

The proceedings of the Institute will be published as a manual for all workers in the health and related fields.

Around the World

(Ser. III, No. 1)

By

CLAUDIUS F. MAYER, M.D.

ALASKA'S population greatly increased during the period from 1900 to the present time. With its recently gained statehood, our Arctic member can expect additional newcomers to help the agricultural and industrial development of its vast territory of nearly 600,000 square miles. But, in every other part of the world *beyond the Arctic Circle*, the population has been increasing and spreading in recent years. In the Extreme North of Russia, in 1897 less than 500,000 persons lived in that cold territory. By 1926, the population grew to 732,700 persons, and in 1939 it reached 2,097,200 inhabitants. Since that time, many hundreds of thousands were added to the slave-labor camps beyond the Arctic Circle, and there has been also a steady flow of volunteers migrating to the North and to Siberia in the Soviet Union.

Such a huge demographic trend naturally becomes of great interest to medical research, and the *problems of acclimatization* have attracted much attention everywhere in the world. Our own country's efforts in this field are well known, and the literature on the physiology and pathology of the Arctic (and Antarctic) has now grown to a vast volume in the English speaking countries. We are less familiar with the corresponding researches in Russia. Studies on acclimatization in the *cold regions of Soviet Russia* began at Arkhangelsk in 1924 at the Polar Sanitary Bacteriological Institute, and with the medical expedition of the Yakutsk Commission of the Soviet Academy of Sciences (1925-26). These early studies covered the clinical features of the deficiency diseases, the problems of nutrition, the vitamin requirements, the bacteria in the air of Novaya Zemlya, the question of helminthosis in the Tajmyrsk tundra, and the living possibilities in Yakutia.

When the *Arctic Bureau* was organized in 1933, it laid down a systematic plan for the studies of acclimatization in the Arctics. A great advance was made in this field by the experimental investigations of A. D. Slonim and his coworkers in the Transarctic Region during 1946-1949. Danishevsky and his team have spent many years (1941-1954) in the Perchersk where, at the rheumatological and cardiovascular clinics, they also collected a huge material related to the acclimatization to cold environment. In this physiological reaction to cold they assigned a basic role to ascorbic acid, and described certain forms of acclimatizational C-hypovitaminosis which they considered a "*meteo-neurosis of disadaptation*."

The relation of morbidity to the local climate and to the length of *sojourn in Vorkuta* has been observed by V. J. Chekin who studied the vitamin balance, the blood formation and the hemodynamics of the inhabitants of this infamous labor camp. Others observed that there are many inhabitants who react to the Transarctics with high blood-pressure. In recent years it was also possible to compare the hemodynamic effects of the opposing polar regions on the basis of physiological data collected at the North Pole, at the drifting *ice-station SP-4*, from 1954 to 1957, and in the Antarctic in 1955-1957.

The human acclimatization studies have been of a much wider range in Soviet Russia since 1946. The scholars of the Medical Academy, with the participation of the *Arctic Institute*, organized several expeditions (about four) in the 1946-1951 years. They included many aspects of human life in the North, and resulted in many practical recommendations. But the members of the Russian Academy of Medical Sciences are wrong and uninformed when at reporting their own

efforts, they try to belittle the achievements of others, by saying, "All this represents a great contrast to what the doctors do who are working in Alaska and in Northern Canada." The *medical service of the Arctic* has also improved in the Soviet Union. Thus, in the *Komi Autonomous S.S.R.*, where not more than five doctors used to be working formerly, on the first of January 1956 the registry counted 392 doctors, 432 dentists, and 2,274 medical auxiliary (so-called middle cadre) personnel. Of course, one wonders how many of them had freely chosen their settlement in this region "behind the back of God." A further evidence of the increased interest in human acclimatization to the North was shown by the organization of a scientific conference on this very topic, which was held in Irkutsk in June 1957.

Speaking of the North, we may add here a brief note about an interesting innovation in the form of *floating policlinics in Siberia*. Such policlinics, or outpatient wards, are built atop a raft, and they are towed by a motor-boat or tugboat along a river where people are settled. The headquarters of such floating policlinics are in larger towns, usually at universities or larger medical centers which provide the necessary staff and service. Such floating policlinics are operating now on the *Ob river* and some of its tributaries for the people in the *Ostyak*, *Samoyede* and *Tunguz* districts, with headquarters in *Tomsk*; on the *Yenissei* river in the *Krasnoyarsk* district; in the *Kargasok* district, in the *Alexandrov* district, etc. The floating policlinic has various specialists on its staff, and it is fully equipped for any type of medical and surgical diagnostic and therapeutical work, including even facilities for *health education*. As an example of the function of such a medical float we mention the *Tomsk* raft the cruising of which lasted for about 50 days, while it covered 2,384 miles, and had a daily average admittance of from 65 to 100 persons.

A recent study in *England* showed that the cost to the country in loss of time, loss of wages, etc., etc., is tremendous for the so-

called *industrial "dermatitis."* According to the figures of the Ministry of National Insurance, 300 million days were lost for work from all sickness and injury; among the lost time, over 4 million days were caused (1.3%) by skin diseases, and over a million days were caused by industrial dermatitis. It is felt that much could be done by the education of the workmen in general cleanliness. It is, e.g., quite amazing to know that about one in 1,000 juveniles, applying for jobs, is rejected at the first examination because of lousiness (twice as many girls as boys).

A glance at a map of morbidity in *Belgium* shows that the highest incidence of lung cancer is found in the area of *Liège* where the ratio of respiratory tumors reaches 12 in 100,000. *Liège* is on the banks of the *Meuse* river. Upstream from the city is the valley where a toxic fog attacked more than 9,000 people in December 1930, eighty of whom died a few hours later. The event was an evidence of how steadily our atmosphere becomes polluted by the waste products of industry. The present problem is the relationship of lung cancer to the *atmospheric pollution*. It is very difficult to accurately show that the same factors which produced the toxic fog in 1930 are at work also in the increase of lung cancer in the *Liège* district. Carcinogenic agents are so many and so diverse in our environment that it is virtually impossible to pick out any single element as the chief agent of the cancer. A study of pulmonary cancer patients in the *Liège* area shows that most of them are dwelling in the center of the city, especially in streets beside railways or canals carrying coal-burning boats. Railway engines and steamboats pollute the air with their smoke which contains much carcinogenic hydrocarbon. Polluted air may be more important in the genesis of lung cancer than cigarette smoking, says the director of the Pathological Institute of this Belgian city.

Man is able to communicate his thoughts by the *production of sound* called *voice*, and the modulation of voice into speech. Yet, the

exact dynamics of how human voice is created has not been known until very recently. Experiments and observations made in France since about 1949 have disproved the old idea that in phonation the vocal cords would function exactly as elastic musical cords, and that they would be put in oscillatory vibrations by air expired from the lungs. *Physiologists of the Sorbonne* proved that nothing is vibrating in the larynx during the production of sound. Under the stimulus of the recurrent nerve the muscular fibrils inserted in the free border of the vocal cords are simultaneously contracted very rapidly and rhythmically, one contraction taking less than 0.8 thousandth of a second, and its rhythm being exactly equal to the frequency cycle of a definite sound. With each contraction, the cleft between the cords becomes wider, and, if the air in the windpipe is put under pressure below the cord, a jet of air flows through the cleft. The periodic repetition of this air-flow puffs from the subglottic area constitutes the *initial laryngeal sound*. When this sound reaches the cavity of the throat and mouth above, the air pressure periodically increases within this cave, and the sound assumes its vocal character. Thus, the subglottic air does not have anything to do with the physical conditioning of the vibrations of the *vocal cords*. It just determines the intensity of the sound. By an air-puff of 20 cm. water pressure, a sound of 250 cycles will be heard as a whisper; it will become a roar if the air is ejected under 100 cm. water pressure from the windpipe.

Among the international losses of science we mention the death of *Ernest Jones* (1879-1958), British psychoanalyst, a very good friend of Freud whom he helped to escape from Wien. Jones was the doyen of British psychoanalysts.

It will perhaps interest the medical historians that on October 4 and 5 of this year the first *Hungarian Medico-Historical Congress* was held at Sárovar (County Vas) in the ancient medieval fortified castle of the Nádasz family. This castle was the site of activity of Caspar Körös, a scholarly man

and the first Hungarian doctor who in the 16th century obtained a medical degree from a university. The County itself played an important role in the development of medicine in Hungary; the first botanical pharmacological work in the vernacular was also published here in 1588. By the way! The July 20th issue of the *Hungarian Medical Weekly* (Orvosi Hetilap) contained a pleasant surprise for medical historians in the form of a section of the journal, a new medico-historical serial entitled *Horus*. It is rich in historical material, being also the official publication of the recently organized local Documentation Service for Medical Sciences. The new journal was established, and is being edited, by G. Gortvay, the director of the Documentation Center.

It is a general belief that people who are living under *rural conditions are healthier* (?) than the inhabitants of cities. Yet, the results of recent recruiting in *Western Germany* seem to disprove this assumption. Reports show that the health of the South-German peasant youth is generally worse than that of the city youngsters. A similar conclusion was made earlier in Austria where only 68.2% of the rural draftees proved to be fit for military service against 81.6% of the town youth. Why is this so? A doctor of München, after careful environmental study, found that the rural children are exposed to various harmful influences from early childhood, including a long daily walk to and from the school (?), the daily heavy chores, etc., etc. They are also exposed to the danger of bovine tuberculosis. The situation of health among the adult population of the villages is not better. Rural women are overworked, and die sooner than their sisters in the cities. Surveys showed that many more of them have goiter, other thyroid troubles, carious teeth, etc., than the women of towns. One of the chief causes of such ailments is the general *lack of vitamin A, B, D, and E*. There are less and less people in the villages who bake their breads, and the good-old vitamin-D rich peasant bread was pushed out from the market by the "white bread."

According to the data of the Central Statistical Office in the Eastern sector of Berlin, the *People's Republic of Germany* had 13,808 doctors, or about 1 to every 1,270 people. Of this number, 64% are in the State service, and only 31% have been in private practice. In 1956, East Germany had 7,275 dentists, and 2,241 pharmacists. The East German doctors graduate from the medical faculties of Berlin, Leipzig, Halle, Jena, Rostock, and Grifswald. There are also three medical academies at Dresden, Erfurt, and Magdeburg. In 1956, the number of medical students was 8,742. The course lasts five years. The annual graduations amount to 1,000 new doctors.

To continue the health statistics of East Germany, in 1956 that country had 903 hospitals of all types, with about 202,401 beds (or 11.3 beds per 1,000 persons). This number included 682 governmental hospitals, 98 therapeutic institutions in the hands of religious organizations, and 123 institutions in private management. There are also 367 polyclinics and 1,142 outpatient wards (with-in or without the hospitals). The outpatient wards are for general purposes (264), for industrial patients (157), for tuberculous patients (429), for dermatology and venereology (3), and for rural patients (299).

In April 1955, *tuberculosis immunization* became obligatory in Poland. Newborn children must be immunized in the first 15 days of their life, while all tuberculin-negative youths must be immunized up to 18 years of age. The immunization is by means of the *BCG vaccine*. It is administered by the Public Health Service. Each "voivodeship" has an Antituberculosis Dispensary and a mobile unit. Newborn babies are vaccinated at the obstetric wards. Until recently, a vaccine of

the Danish Red Cross had been used. It has been replaced by the Brazilian strain of BCG. From 1947 until 1957, almost three million babies received the BCG vaccine. The tuberculin survey during this period included the testing of almost 17 million children, but only some 5 million needed a prophylactic vaccination.

The Soviet organizations of *Red Cross and Red Crescent* opened a series of hospitals in foreign countries, as mentioned some time ago. These hospitals are provided with brigades of Soviet medical specialists. In Teheran, for instance, 50 Soviet citizens are on the staff of medical personnel, among them 22 doctors. In 1955, a 430-bed hospital was opened by the *Soviet Red Cross in Phen-Jan*, with 75 medical workers, among them 50 doctors. In 1956, a 150-bed hospital was opened in Vietnam's Hanoi, and three detachments of Soviet workers are fighting malaria and trachoma there. In 1955, a Soviet scientific research center for child welfare was opened in Delhi, and, at the All-India Medical Institute, the Soviet created a scientific-practical center for physical medicine. In *Addis Ababa*, the *Soviet Red Cross Hospital* is a very handsome building, with three stories. It opened with 65 beds in 1947. It has a medical, a surgical, a pediatric, and a maternity department, a laboratory and an out-patient department. There are 20 Soviet specialists, among them 8 doctors. During the past ten years of its activity, the Addis Ababa Russian hospital had 22,000 admissions, and 157,000 ambulatory patients. A jubilee festivity was celebrated on Oct. 24, 1957 at which even the vice-president of the Russian Academy of Medical Sciences appeared. . . . *Multa paucis!*



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ASSOCIATION NOTES

Timely items of general interest are accepted for these columns. Deadline is 3rd of month preceding month of issue.

Department of Defense

Ass't Secretary (Health & Medical)—HON.

FRANK B. BERRY, M.D.

Deputy Ass't Sec'y—HON. EDW. H. CUSHING, M.D.

DR. BERRY TO BE RETAINED

In the reorganization of the Department of Defense it is expected that Dr. Berry will be retained in office. The Secretary of Defense has indicated that he wants to retain the post of the Assistant Secretary of Defense for Health and Medical Affairs and the President has considered the matter favorably.

DIRECTOR AFMPA

Colonel Robert J. Benford, USAF (MC), has been named Director of the Armed Forces Medical Publication Agency, Washington, D.C. In this position he is also editor of the *Armed Forces Medical Journal*, a monthly publication. He succeeds Captain Bennett F. Avery, MC, USN, who has been appointed national coordinator of the Medical Education for National Defense (MEND) program with office in Washington.

Colonel Benford is well acquainted with the work of his position as he was formerly editor of the *Armed Forces Medical Journal*. He is well experienced in the field of journalism having been a newspaper man, and a medical writer. He is author of "Doctors of the Sky," a history of aviation medicine, and

is presently editor of the *Journal of Aviation Medicine*, official publication of the Aero Medical Association.

A graduate of the University of Nebraska School of Medicine, Colonel Benford entered the military service in 1936. During World War II he served as Staff Surgeon of the XX Bomber Command. He recently completed a tour of duty in the Office of the Assistant Secretary of Defense (Health and Medical).

He is a Life Member of the Association of Military Surgeons of the United States and was General Chairman of its 59th Annual Convention in 1952 when Major General Harry G. Armstrong was president.



Official U. S. Air Force Photo

COL. ROBERT J. BENFORD, USAF (MC)

DRAFT

The Selective Service System has been requested to provide 11,000 men for the Army for November.

Army

Surgeon General—MAJ. GEN. SILAS B. HAYS

Deputy Surg. Gen.—MAJ. GEN. JAMES P. COONEY

DEPUTY SURGEON GENERAL HONORED

Major General James P. Cooney, Deputy Surgeon General of the Army has been elected Honorary Fellow of the American College of Gastroenterology.

General Cooney addressed the group on the theme "Interpersonal Relationships" during the meeting of the society in New Orleans in October.

RESEARCH AND DEVELOPMENT COMMAND

Brig. General Joseph H. McNinch, MC, has been appointed Commanding General of the new Research and Development Command of the Army Medical Service which has been activated by General Order 31, dated August 23.

The establishment of such a Command emphasizes the importance of research and development in medicine in the military forces.

Research studies with which the new Army Medical Service Research and Development Command will be vitally concerned include continuing investigations of the medical effects of ionizing radiation and the medical prevention and treatment of these effects; the prevention and treatment of communicable diseases of importance to troops in overseas areas; surgical problems in the care of the burned and wounded; medical problems of operations under temperature extremes and other adverse environmental conditions; and the physiological and neuropsychiatric problems of military operations.

General McNinch is a native of Indianapolis, Indiana. In 1927 he received an A.B. degree and in 1930 an M.D. from Ohio State University. He is a graduate of the Army Medical School, and the Medical Field Service School. In 1951 he received the master of public health degree from Johns Hopkins

University. He was commissioned in the Medical Corps of the Army in 1930.

CONTINENTAL ARMY COMMAND

The Surgeon General of the Army, Major General Silas B. Hays, recently visited Fort Monroe, Va., the Headquarters of the U. S. Continental Army Command (CONARC). He was accompanied by Colonel Byron L. Steger, Chief, Personnel and Training Division of the Surgeon General's Office. Colonel J. G. Cocke, MC, is Chief of the Medical Section of CONARC.



U. S. Army Photo

(L. to R.) COL. J. G. COCKE; MAJ. GEN. SILAS B. HAYS, *The Surgeon General*; COL. BYRON L. STEGER, MC.

FIRST ARMY SURGEON

Colonel Howard W. Doan, MC, a native of Illinois, became Surgeon of the First Army on October 1, the 25th anniversary of his entry into the Army.

As First Army Surgeon stationed at Governors Island, New York, Colonel Doan will be technical advisor, to the Army Commander, General Staff and other staff sections on all matters pertaining to the Army Medical Service and the health of the command. His long Army service and training well qualifies him for this position. During World War II he went to Europe as executive officer to the Chief Surgeon, and later (1945-1948) was executive officer for the Surgeon General of the Army. Following that tour of duty he studied for his Master's

degree in Public Health at the University of California and then spent a year at Fitzsimons Army Hospital, Denver, Colo. Later he served as Superintendent of Gorgas Hospital, Panama Canal Zone. A recent assignment took him to Fitzsimons Army Hospital again where he became Deputy Commander.

Colonel Doan has been awarded the Bronze Star Medal, the Legion of Merit and on leaving Fitzsimons Army Hospital was presented with the second award of the Commendation Ribbon with Metal Pendant.

He is a Member of the American Medical Association, the American Public Health Association, the American College of Hospital Administrators and the Association of Military Surgeons.

NEW CHIEF ARMY MEDICAL SPECIALIST CORPS



U. S. Army Photo

COL. RUTH A. ROBINSON, AMSC

On November 1, Colonel Ruth A. Robinson, AMSC, became the new Chief of the Army Medical Specialist Corps. She succeeded Colonel Harriet S. Lee.

A native of Boston, Massachusetts, Colonel Robinson graduated from the Boston School of Occupational Therapy in 1939. From February 1944 until May 1948 she served as an occupational therapist with the Medical Department of the Army in a civilian capacity. During this time she was chief

occupational therapist at England General Hospital in Atlantic City, New Jersey, and later also served as Consultant in Occupational Therapy to the Surgeon, Headquarters Second Service Command.

She has served at Brooke Army Hospital, Fitzsimons Army Hospital, and recently for three years has been chief occupational therapist at Walter Reed Army Hospital in Washington. She is currently president of the American Occupational Therapy Association.

ASS'T. CHIEF, AMSC

Lieutenant Colonel Barbara Robertson Fritz was recently appointed Assistant Chief of the Army Medical Specialist Corps and Chief of the Physical Therapist Section of the Corps.

A native of Tacoma, Washington, Colonel Fritz received a Bachelor of Science degree in Physical Education from the State College of Washington in 1933. She also holds a Master of Science degree from the University of Colorado Medical School. She has served as a physical therapist with the Army Medical Service since 1937. During World War II she served three years in the Pacific Theater of Operations.

THE ARMY STUDENT NURSE PROGRAM

The Army Student Nurse Program, approved by the Secretary of the Army, was implemented on 18 April 1956. It is an officer candidate program established for young women who are enrolled in a basic nursing program of a 3, 4 or 5 year school offering a diploma or bachelor's degree in nursing, and which has been fully or temporarily accredited by the National League for Nursing and acceptable to the Department of the Army. Only 250 candidates may be selected, nationwide, annually to participate for 1 or 2 years.

The purpose of the program is to provide worthy student nurses, who have completed 2 years of their basic nursing program in a 3 or 4 year school, or 3 years of a 5 year program, financial assistance to enable them to complete requirements for an RN without

financial worry and to assist the nursing profession in alleviating somewhat the overall shortage of professional nurses by attracting qualified young women toward a career in nursing; also to provide an input of young selected officers to meet the patient care needs in Army hospitals and the Medical Reserve Units in event of mobilization for the future.

To be eligible for selection, applicants must:

Be between the ages of 18 and 28 years.

Be U. S. citizens.

Be physically qualified for enlistment and later appointment as officers in the Army Nurse Corps.

Have excellent personal, academic and high moral qualifications as an individual and potential nurse.

Be recommended by the Dean or Director of the school of nursing.

Be matriculated as a full-time student in a program offering a diploma or degree in nursing and have completed 2 years of the 3 or 4 year program or 3 years of the 5 year course.

Submit applications within 120 days of completing second year in school.

Submit written consent of parents or guardian if under 21 years of age.

Selected individuals who are enlisted under this program are not required to wear a military uniform or participate in training activities while in school. Upon graduation and after completing requirements for state licensure participants are commissioned and called to active duty as second Lieutenants in the Army Nurse Corps, Army Reserve, and required to serve on active duty at selected Army hospitals for a period of 2 or 3 years, depending on the time spent in the program.

When time spent *in school* is 12 months or less the obligation *as an officer* is 2 years on active duty (24 months).

When time spent *in school* is more than 12 months and up to 2 years the *obligation as an officer* is 3 years (36 months).

This Service obligation includes time spent in the Basic Officer Orientation Course (9

weeks) for all newly commissioned officers. The Course is given at the Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Texas.



U. S. Army Photo

(L. to R.) Capt. Robert E. Amarine, USA; Miss Lucile Seten; Miss Christine Ann Durbin; Sister Lucilla, Associate Director of Nursing Education, Incarnate Word College, San Antonio, Texas; and Lt. Col. Mabel Hammarlund, Chief Nurse, Fourth U. S. Army, Fort Sam Houston, Texas. Miss Seten and Miss Durbin are being sworn into the Women's Army Corps Reserve. They are enrolled in the degree program and will attend Incarnate Word College School of Nursing for the next two years.

ARMY MEDICAL SERVICE SCHOOL

Continuous training programs are necessary to maintain a high standard of performance in any field. The Army Medical Service realized this many years ago when it established in Washington, D.C., the Army Medical School. While the basic idea, that of training has never changed, the physical establishment has passed through many phases.

The present Army Medical Service School of which Major General Elbert DeCoursey, Medical Corps, is Commandant is located at the Brooke Army Medical Center, Fort Sam Houston, Texas, near San Antonio. The Commanding General of this Center is Major General William E. Shambora, Medical Corps.

Not only are officers of the Medical Service of the U. S. Army trained here but foreign medical officers in limited numbers are accepted for training. Many friendly foreign

countries have sent medical personnel to this medical center for the high type of training that it affords. Shown here are officers from Ethiopia and Turkey.



U. S. Army Photo

(L. to R.) Maj. Gen. Wm. E. Shambora; Capt. Assefa Andargai and 1st Lt. Tamire Gabreyes, Ethiopia; Maj. Gen. Elbert DeCoursey.



U. S. Army Photo

First Lt. Ulka Sema, Aran, left, Turkish Army, observes as a young patient is examined by Capt. Carl E. Stracener, MC, USA.

EXECUTIVE OFFICER BAMC

Colonel Clark B. Williams, MC, has been named as the Executive Officer of Brooke Army Medical Center, Fort Sam Houston, Texas, the Commanding General of which is Major General William E. Shambora.

Colonel Williams has just returned from an assignment as Medical Staff Officer and Advisor to the U. S. Military Assistance Ad-

visory Group to the Nationalist Government of China on Taiwan.

A native of Colorado, he entered the Regular Army in 1937 and has specialized in physical medicine, having been certified by the American Board of Physical Medicine and Rehabilitation.

During the very early days of Elmendorf Field at Anchorage, Alaska (1940), Colonel Williams was medical supply officer for the burgeoning forces of the area. During 1944 and 1945 he was on the staff of the Surgeon, Mediterranean Theater of Operations. Later assignments took him to Madigan Army Hospital and William Beaumont Army Hospital, after which he became Chief of Physical Medicine and Consultant in the Office of the Surgeon General of the Army.

DIRECTOR OF NURSING ACTIVITIES

Colonel Ruby F. Bryant, former Chief of the Army Nurse Corps, and just recently Chief Nurse of the Army Forces in Europe, has been assigned to the Brooke Army Medical Center as Director of Nursing Activities of that Center.

HEADS ORTHOPEDIC SERVICE

Colonel John D. Blair, MC, has succeeded Colonel Milton S. Thompson (retired) as Chief of the Orthopedic Service at Walter Reed Army Hospital.

After receiving his medical degree from the University of Oregon Medical School in 1932, Colonel Blair engaged in general practice in Vancouver, Washington until 1938 when he entered on a residency in orthopedics.

In 1941 he entered on active duty with the Army Medical Corps and during World War II served in the Southwest Pacific Theater. His most recent assignment prior to that at Walter Reed was at Letterman Army Hospital.

STUDENTS AT WRAIR

Army doctors who are students of the sixth class of the Military Medicine and Allied Sciences Course at Walter Reed Army

Institute of Research are: Lt. Col. Walter H. Lumpkin; Majors W. R. Schilhammer and Arthur G. Law; Captains Vincent Cutshall, James E. McCarty, Murray Spotnitz, O'Neil Barret, Ralph S. Goldsmith and Robert J. T. Joy.

The course director is Lt. Colonel Christian Gronbeck, Jr. The Hoff Medal is awarded to the graduate of the course with the highest class proficiency.

MEDICAL SERVICE CORPS

As of June 30, 1958 the Medical Service Corps had a total of 1,080 Regular officers. The present authorization is 1,612. In 1963 this authorization is scheduled to be raised to 2,000.

There is acute shortage of Regular officers in the specialties of clinical psychology, sanitary engineering, and optometry.

WATCH THE CALORIES

Posted daily alongside the menu on the outside of each mess-hall of the 3d Air Defense Artillery Group at Norfolk, Va., is the calorie count of each item per serving. This is the idea of SFC Roderick Barfoot for those who wish to watch their weight.

EFFECTS OF HEAT FILM

An official Army film is being produced at Brooke Army Medical Center by the U. S. Signal Corps on the prevention, recognition, and treatment of heat disorders.

Conservation of manpower through the prevention of heat disorders is a joint responsibility of Command and Medical service. Indoctrination of the troops must be done prior to the hot weather and must continue throughout the season. Under the best conditions there will be those who will be unduly affected by heat but casualties can be reduced by proper training.

CIVIL DEFENSE

At Phoenix, Arizona, the 451st General Hospital (USAR), the Civil Defense authorities, and the citizens are working in a

combined training and public relations program.

The Civil Defense authorities have provided complete equipment for a 200-bed Emergency Hospital, the Reserve unit has provided storage and trained instructors in the use of the equipment, and the citizens have provided students to be trained in administering, packing and moving the hospital equipment.

In return for their participation in the program, the Reserve unit uses the equipment in its duty training program.

UTILIZATION OF INDUCTED SCIENTISTS

The Army Medical Service's use of scientifically trained enlisted manpower continues a 183-year pattern of contributing directly and indirectly to the development of better medical care for the American people.

The qualified young scientist serving his obligated military enlistment is put to work in one of ten nationally known hospitals or research centers of the Army Medical Service. Approximately 250 of them are thus utilized. This employment enables the enlisted man with the proper educational background to progress within his own scientific field while on active duty. From the standpoint of national defense, such a practice helps to insure global leadership of the United States in the technical fields allied to medicine. It conserves the educational investment made by the young scientist for later dividends to the public welfare.

The following Army medical installations are utilizing the young enlisted scientists and professionally trained men: Walter Reed Army Institute of Research, Washington, D. C.; U. S. Army Medical Research Laboratory, Fort Knox, Ky.; U. S. Army Medical Nutrition Laboratory and Fitzsimons Army Hospital, Denver, Colorado; Letterman Army Hospital, San Francisco, California; Surgical Research Unit, Brooke Army Medical Center, Fort Sam Houston, Texas; U. S. Army Environmental Health Laboratory, Army Chemical Center, Edgewood, Maryland; U. S. Army Tropical Re-

search Medical Laboratory, Fort Brooke, Puerto Rico; and Valley Forge Army Hospital, Phoenixville, Pennsylvania. Army enlisted scientists are also utilized at joint medical installations such as the Armed Forces Institute of Pathology, Washington, D.C.

The Fort Knox enlisted scientists include physical science assistants, chemical engineering and electric-electronic engineering aides, those trained in the biological sciences and the social science aides who have experimental psychology in their educational backgrounds. Civilian occupations related to the physical science personnel are those of the astronomer, the geologist, the physicist, the meteorologist and the chemist.

Those who work in the biological area will find their civilian counterparts as entomologists, parasitologists, biologists, botanists, zoologists and bacteriologists. Activities making up the daily routine of the military social sciences assistant would be followed by the civilian economist, psychologist, sociologist, foreign service officer, historian and geographer.

It might be added that these inductee assistants at Fort Knox represent a cross section of the classification used at all of the ten stations to which the scientific and professional personnel are assigned.

When requisitioning enlisted electric-electronic engineering assistants from this group, the medical installations are likely to want men familiar with the use of oscilloscopes, oscillators, vacuum tubes, voltmeters and bridges of different types. Those who have had working experience on electronic circuits, potentiometers, power supplies and audio equipment, are highly sought.

The U. S. Army Environmental Health Laboratory at the Army Chemical Center usually has about twenty of these young scientists on its rolls. Most of them assist in the regular investigations and field studies conducted by the Laboratory into the cause and effect of occupational health hazards which occur in the daily work of civilian and military personnel. They contribute professionally to these studies in the fields of toxic-

cology, entomology, chemistry, physics and mathematical analysis.

As the installation using the largest group of the Army Medical Service's scientific and professional enlisted personnel, the Walter Reed Army Institute of Research has a wider-than-usual range demand for their services. In addition to the usual physical science assistants and others, there is the mathematics-statistics assistant needed for procedures such as differential equations, matrix algebra, interpolation and an analysis of variance. This assistant works on the planning application of mathematical analysis to scientific problems. There is also the mechanical engineer assistant who sets up the work sequences; makes calculations to determine stresses, strains, clearances and material strengths; and participates in a variety of engineering tests on machinery and in many other aspects of industrial engineering.

Also to be found at the Army Institute of Research is the business administration assistant who takes part in the direction and coordination of budget, fiscal, statistical, audit, reporting and management engineering to achieve economical expenditure of operational funds. This particular enlisted assistant is to be more widely used in the future in Army medical comptroller functions, especially in the hospitals, for the study of nursing methods toward better patient care. Valley Forge Army Hospital has demonstrated the value of these business administration assistants in recent projects.

All of these classifications provide cherished talents and capable support to the Army Medical Service mission of keeping the American soldier physically fit.

ARMY EXTENSION COURSES

New Subcourses recently published and available through the Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Texas are:

Evacuation and Transportation of the Sick and Wounded. Med. Subcourse 7.

Dental Administration. Med. Subcourse. 84.

Medical Aspects of Military Law 1. Med. Subcourse 104.

Military Government. Med. Subcourse 110.

Recently Revised:

Medical Service in a Theater of Operations. Med. Subcourse 2.

Medical Records and Reports. Med. Subcourse 27.

Hospital Statistics. Med. Subcourse 205.

Navy

Surgeon General—REAR ADM. BARTHOLOMEW W. HOGAN

Deputy Surgeon General—REAR ADM. BRUCE E. BRADLEY

NEW CHIEF, MSC

The second Chief of the Medical Service Corps of the Navy, Captain Leo J. Elsasser was sworn in on October 1.

A native of Omaha, Nebraska, Captain Elsasser entered the naval service in 1930. He has had a wide experience in hospital administration and at the time of his appointment to be chief of his corps was Commanding Officer of the Naval School of Hospital

Administration at the National Naval Medical Center, Bethesda, Maryland.

He is a member of the American Hospital Association and has served on its Council on Planning, Financing, and Prepayment.

CAPTAIN CALKINS, MSC CHIEF, RETIRED

Captain Willard C. Calkins, first Chief of the Navy Medical Corps retired on October 1 after more than thirty-nine years of active naval service.

He is a native of New Haven, Conn. In 1919 he enlisted as a hospital apprentice; in 1929 he was appointed a Warrant Pharmacist and in 1942 was promoted to Lieutenant, junior grade in the Hospital Corps. Upon his appointment as first Chief of the Navy Medical Corps October 1954 he was promoted to the rank of Captain.

During World War II Captain Calkins participated in the Northern Solomons Campaign. After the war he was assigned to the Medical Purchasing Office in Brooklyn and prepared the first medical department section of the Catalog of Navy Material.

They are making their home at 4630 Yuma St., N.W., Washington, D.C.

RESERVE OFFICERS SELECTED FOR REAR ADMIRAL

Five inactive Naval Reserve Medical Corps Captains have been selected for promotion to the grade of Rear Admiral, Medical Corps, U. S. Naval Reserve. They are: Dr. Joseph S. Barr of Newton Center, Mass.; Dr. Francis J. Braceland of Hartford, Conn.; Dr. William L. Rogers of San Francisco, Calif.; Dr. Robert A. Ross of Chapel Hill, N.C.; and Dr. Wendell G. Scott of St. Louis, Mo.

Doctor William McGill Burns of Garden City, New York, was selected for promotion to the grade of Rear Admiral in the Dental Corps of the U. S. Naval Reserve. He is the fourth Reserve Dental Officer to be selected to flag rank.

ASSIGNMENTS

Commander Benjamin F. Fundleginer, MC, has been assigned as Head, Tropical



Official U. S. Navy Photo

CAPT. L. J. ELSASSER, MSC, USN

Diseases Branch, Preventive Medicine Division. Prior to reporting to the Bureau he was attached to Naval Medical Research Unit # 4.

Lieutenant Mason A. Nelson, Jr., MSC, recently reported to the Bureau of Medicine and Surgery for duty as Head, Facilities Development Branch, Planning Division. He had been on duty with the Military Medical Supply Agency in Brooklyn, N.Y.

Captain John D. DeCoursey, MSC, has been appointed as Head, Vector Control Section, Health Practice Branch, Preventive Medicine Division, in the Bureau of Medicine and Surgery.

NEED FOR PHYSICIANS AND DENTISTS

Physicians and Dentists desiring appointment in the Regular Navy in the rank of Lieutenant Commander should make application to The Chief of Naval Personnel. If on active duty application must be made through proper channels.

Individuals must not be more than 43 years old.

NUCLEAR NURSING COURSE

The first "Nuclear Nursing" course is now in progress at the National Naval Medical Center, Bethesda, Maryland. The course is under the direction of Captain E. Richard King, MC, Director of the Navy Medical School's Department of Nuclear Medicine.

Twelve Navy and two Air Force Nurse Corps officers are enrolled in the four-month course which will be completed December 19, 1958. The curriculum includes instruction in the principles underlying radioisotope therapy and procedures for the care of mass casualties as they related to medical diagnosis, treatment and nursing care of patients.

DENTAL TECHNICIANS TO ENSIGN, MSC

Six dental technicians were recently selected for appointment to Ensigns, Medical Service Corps. They are: James E. DeWitt, Eugene R. Keller, Berger R. Elfstrom, Malcolm K. Law, Howard D. Madison, and Francis J. Reeding.

HEAD OF MICROBIOLOGY

Dr. Harve J. Carlson recently reported to the Office of Naval Research, Washington, D.C., to assume the position of Head of the Microbiology Branch.

A native of Idaho, he did undergraduate work at the University of Washington and received his Doctorate from the University of Michigan. He was a bacteriologist with the Idaho State Department of Health. At Western Reserve University he performed research on antibiotics and airborne infections. During World War II Dr. Carlson served as Laboratory Officer in the U. S. Navy and now holds the rank of Commander in the U. S. Naval Reserve.

TOOTH BRUSH HABIT

In a recent study of the tooth brushing habits of young male adults, which was conducted by the Dental Research Facility, U. S. Naval Training Center, Bainbridge, Maryland, it was noted that the total rate of dental caries as revealed by the number of DMF (diseased, missing and filled) teeth showed little relationship to the frequency of tooth brushing. However, a marked relationship was demonstrated to factors which indicate neglect, such as the number of unrestored carious surfaces on teeth, depth of cavities, the number of teeth to be extracted, and poor oral hygiene.

Evidence of dental care (i.e., the number of restored teeth), including good oral hygiene, showed a direct relationship to good tooth brushing habits. It was apparent that the interest in home care is associated with an interest in obtaining professional dental care.

The association between the state of dental health and tooth brushing habits suggests that those who neglect their teeth at home, as evidenced by poor oral hygiene, also neglect needed dental care. (*Survey of Dental Health of Naval Recruit III*)

RETIRED

The following officers of the Medical Corps of the Navy have been retired: Cap-

tains Martin Cooperman, William J. James, John W. Koett, Tilden I. Moe, and Leonard Wilson.

The following officers of the Medical Service Corps of the Navy have retired: Lieutenant Commanders Carter G. Brooks, Wesley M. Lang, Charlie M. Lee, Charles E. Neuneker, Ottilie R. Scheile, and Samuel A. Woods.

Air Force

Surgeon General—MAJ. GEN. DAN C. OGLE,
Deputy Surg. Gen.—MAJ. GEN. OLIN F. McILNAY

FURTHER TRAINING

Captain Kenneth M. Jensen, USAF (MC), and Captain John C. Roy, USAF (MC), residents in radiology and orthopedic surgery at New York Hospital and Bellevue Medical Center respectively, have been approved to take "The Pathology of Bones and Joints" course conducted by Dr. Henry L. Jaffee at the Hospital for Joint Diseases, New York City.

NUCLEAR NURSING

Major Sara K. Neese, USAF (NC), USAF Hospital, Maxwell Air Force Base, Alabama, and Major Agnes M. Arrington, USAF (NC), 3882d School Group, Gunter Air Force Base, Alabama, are presently attending the four-month course in "Nuclear Nursing" at the Naval Medical Center, Bethesda, Maryland.

Public Health Service

Surgeon General—LEROY E. BURNEY, M.D.
Deputy Surg. Gen.—JOHN D. PORTERFIELD, M.D.

AIR POLLUTION

The Surgeon General of the Public Health Service, Dr. Leroy E. Burney, has said, "Pollution of the air is an unwanted by-product of progress, and it tends to grow as our cities and industries grow. It is time for us

to take stock of what we know and what is being done about air pollution, and to outline a plan which will enable us to keep pace with the growing dimensions of the problem."

The National Conference on Air Pollution is being held in Washington, November 18-20 at the Sheraton Park Hotel.

RADIOACTIVITY IN MILK

Latest tests show the presence of radioactivity in milk from nine areas in the United States to be well within the permissible levels recommended by the National Committee on Radiation Protection and Measurement.

NURSES' ADVANCED TRAINING

The Public Health Service will award \$6 million this year to colleges and universities for grants to registered nurses for advanced preparation in administration, supervision of nursing service and in teaching methods. About 1,500 nurses will benefit from these grants.

This program which was authorized by Congress in 1956 to run for three years has been recommended for a five year extension by nursing and health leaders.

PARALYTIC POLIO

The increase in paralytic poliomyelitis this year over the number of cases of last year should put everyone on guard. There must be increased emphasis on vaccination. The winter months ahead is the time to prepare for the polio season of 1959. The campaign against this dreaded disease must be waged the year around. Laxity in prevention will reflect itself in the number of paralytic polio cases next year.

RETIRED

The following Commissioned Officers have retired from the Public Health Service: Benjamin L. Newell, Senior Surgeon and Juliette M. Julien, Senior Nurse Officer.

MORE HOSPITALS NOW

The Nation's Health Facilities—Ten Years of the Hill-Burton Hospital and Medi-

cal Facilities Program, 1946-1956 (PHS 616) is a report containing 181 pages, 11 charts and 45 tables showing the progress in hospital planning and construction in the United States. Copies of the report are available at \$1.25 from the Sup't., of Documents, Gov't., Printing Office, Washington 25, D.C.

Over 3,000 projects were approved, the total cost being \$2.5 billion of which the Federal Government provided \$800 million. As a consequence the number of people in the United States without ready access to general hospitals has dropped from 10 million to 2.8 million since 1948.

Veterans Administration

Chief Medical Director—WILLIAM S. MIDDLETON, M.D.

Deputy Chief Med. Dir.—R. A. WOLFORD, M.D.

ASSIGNMENTS

Dr. James W. Raleigh has succeeded Dr. Edward Dunner as coordinator of research on chest diseases, including the joint VA-Armed Forces study of newer drugs for tuberculosis. He is a member of the committee on therapy of the American Trudeau Society and a former president of the New York Trudeau Society.

Dr. Edward F. Zimmerman, who has been director of professional services at the Veterans Administration hospital in Coral Gables, Fla., has been appointed manager of the West Side VA Hospital in Chicago. During World War II he served with the Navy and when released at the end of the war returned to the Veterans Administration which he had joined in 1931.

WILLIAM S. MIDDLETON LIBRARY FUND

The University of Wisconsin Medical School alumni drive which is getting under way in an effort to raise \$850,000 for the William S. Middleton Library Fund.

Dr. Middleton is the former dean of the University of Wisconsin School of medicine and is now Chief Medical Director of the Veterans Administration.

Contributions from friends of Dr. Middleton, former Medical Center patients, and any others who may wish to donate will be welcomed, but the Association hopes to raise most of the money from within its own ranks.

BILLS FOR SPANISH-AMERICAN WAR VETS

No payment can be made for Spanish-American War veterans in private hospitals unless authorized by the Veterans Administration. If hospitalization at VA expense is requested, the nearest Veterans Administration office should be contacted. Instructions will be given by that office.

The assumption that the veteran can be taken to a private hospital and then have the government pay the bill through the Veterans Administration is erroneous.

READING MACHINE FOR BLIND

The printed word translated into sound which by training can be read is made possible by the Battelle machine. Trained users ultimately should attain a reading speed of 15 to 30 words per minute, the Veterans Administration announced.

How does the machine work? A probe with two tiny lights and a lens that projects the image of the printed letter on a row of photoelectric cells is moved along a line of printing. The probe "sees the black" and this impulse turns on an oscillator to generate a specific pitch proportional to the height of the black portion of the letter "seen." These pitches are translated to sound patterns by earphones.

Normal print including typewritten business correspondence can be read in this manner by trained individuals. In a group that received this instruction about 18 hours of training was required following preliminary training in interpreting tape-recorded sounds of the machine.

REHABILITATION OF THE BLIND

There are almost 2,000 war-blinded veterans of the Korean Conflict and World War II. Of this number half are holding jobs as a result of the rehabilitation program of the

Veterans Administration. The fields of occupation are varied covering the professions, the skilled labor, office workers, and sales.

Those achieving a good adjustment emotionally have been the most successful in getting and holding jobs, and those with family ties such as marriage and dependent children have responded better to rehabilitation than those without such ties.

The results of the survey have been compiled and are available in a volume which can be obtained from the Government Printing Office for \$1.25.

VETERANS EXPENDITURES

Expenditures on behalf of veterans last year totaled over \$5 billions—the third most expensive item in the federal budget; this item alone cost every American family an average of \$95.—John E. Booth, "Veterans: Our Biggest Privilege Class," *Harper's Magazine*, July '58.

OCTOGENARIANS

A group of lively 80-year-old Massachusetts veterans has been amazing Veterans Administration doctors who are trying to learn the secret of the "old timers" long life and vitality.

VA officials say 160 of these senior citizens have been examined and studied to date and they appear 20 to 25 years younger than their actual age. They seem typical of some 1,600 remaining veterans of the Spanish-American War.

The VA doctors are probing the "why" of their long life in search of "leads to the treatment and care of other aging veterans as well as non-vets.

Miscellaneous

CHEMICAL IN FOOD

Now the safety of chemicals used in the processing of food must be proved by industry before the chemical can be sold for use in foods. That is the amendment to the food and drug law recently signed by President Eisenhower.

The Secretary of Health, Education, and Welfare, Arthur S. Flemming, said the new legislation was "a major step forward" in the program of the Food and Drug Administration to protect the public from unsafe food additives.

Before this amendment it was necessary for the Government to prove a chemical unsafe after a food item was already on the market and then court action had to be taken to remove the product from sale.

ARTIFICIAL HEART VALVE

Successful tests with an artificial heart valve have been reported by the University of Wisconsin. Now the test on a human subject can be done. This will be the proof of the value of the valve.

The research team was composed of Dr. Richard Botham, instructor in surgery; Ronald Daggett, professor in mechanical engineering; Dr. Cesar Castillo, research associate in medicine. Others having some connection with the work are: Dr. Gerge Rowe, assistant professor of medicine; Dr. William P. Young, associate professor of surgery; Dr. Charles Crumpton, associate professor of medicine and director of the cardiovascular research laboratory; and Dr. George Maxwell, associate professor of pediatrics.

RESEARCH

Excerpts taken from an address, "Science and Business," by Dr. Vannevar Bush at the 10th Annual Rutgers Business Conference at Rutgers University, May 15:

"... it is well accepted today that an industrial unit must regard research as a necessity."

"There is no faster way to get rid of money than by ill-planned or ill-conducted research."

"A sound research project should be one which two sorts of people concoct together. and which they both find attractive. There is nothing worse, in my opinion, than the arbitrary assignment of jobs to a research organization."

"If research is left entirely free, without coordination, it will probably produce a

beautiful structure, admired by the elect, which will not pay."

"... there should be some organizational means present for ensuring that programs move, either toward a really valuable conclusion, or out, that they do not just drag along interminably."

Should you desire a copy of the address (in a nicely printed booklet) you may obtain it free from Merck & Co., Inc., Rahway, N.Y.

TO QUESTION PREGNANT WOMEN

The University of Pittsburgh Graduate School of Public Health will study such matters relating to pregnancy as eating habits, physical activity and characteristic symptoms under equal grants from the National Institutes of Health and the Association for Aid of Crippled Children (New York City). Dr. Samuel M. Wishik, Professor of Maternal and Child Health, will direct the study.

Each day the women will keep a diary on a mechanical recorder. In addition there will be confidential interviews. It is hoped that the results of this project on normal pregnancy will set a pattern for a later study of such problems as prematurity and congenital malformations.

ANTIMICROBIAL AGENTS WALL CHART

A wall chart giving an up-to-date listing of antimicrobial agents by both generic and trade-names with their manufacturers and microbial derivation has been made available to laboratory workers without cost.

The chart is designed to help laboratory personnel with the complex nomenclature often associated with the newer antimicrobial agents. It also serves as a guide for *in vitro* bacterial susceptibility testing with sensitivity discs by listing the appropriate catalogue and code number of the BBL Sensi-Disc for the various agents.

Copies may be obtained by writing Baltimore Biological Laboratory Sales Office, Division of Becton, Dickinson and Company, Rutherford, New Jersey.

BOOK ON STATISTICS

Annual Epidemiological and Vital Statistics. In French and English. World Health

Organization 1958. Obtainable from Columbia University Press, New York. Price \$12.00.

This is a book of 699 pages on vital and health statistics of various countries of the world for the year 1955. It will be of particular interest to those working in the field of vital statistics and those persons needing to know of the health conditions in other countries.

BOOKLET AVAILABLE

Guide to Russian Medical Literature, PHS Publication No. 602, is an 88-page booklet that is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C., for 40¢ per copy.

The booklet is a National Library of Medicine product that gives much information about Russian medical literature.

PEACEFUL USES OF ATOMIC ENERGY

Technical papers presented by American nuclear scientists at the Second International United Nations Conference on Peaceful Uses of Atomic Energy held in Geneva September 1-13, 1958, are for sale by the Office of Technical Services, U. S. Dep't., of Commerce, Washington 25, D.C.

A list of these papers can be obtained from the above office for 25¢; individual papers are 50¢.

GOVERNMENT PUBLICATIONS

Surg. in WW II, General Surgery	\$4.25
Cat. No. D 104.11: Su 7/4/v.2	
Surg. in WW II, Phys. Effects of Wounds	3.50
Cat. No. D 104.11: Su 7	
Surg. in WW II, Vascular Surgery	4.25
Cat. No. D 104.11: Su 7/3	
Surg. in WW II, Hand Surgery	3.75
Cat. No. D 104.11: Su 7/2	
Surg. in WW II, Ophth. & Otolaryng.	5.00
Cat. No. D 104.11: Su 7/7	
Orthop. Surg. in Europ. Theater	4.00
Cat. No. D 104.11: Su 7/5	
Orthop. Surg. in Medit. Theater	4.00
Cat. No. D 104.11: Su 7/6	

Cold Injury, Ground Type 6.25
Cat. No. D 104.11: C 67
Emerg. War Surg. NATO Handbook 2.25
Cat. No. D 1.6: Su 7
These may be obtained from the Supt. of Documents, Gov't, Printing Office, Washington 25, D.C. (check or money order).

WHO PUBLICATIONS

Annual Epidemiological and Vital Statistics, 1955	\$12.00
Intermed. Hosts of Schistosoma	4.00
Schistosoma Japonicum in P.I. #1	2.00
Cholera, Staph. Infect. & Schistosoma in P.I. #2	2.00
Schistosoma Japonicum in P.I. #3	2.00
Bilharziasis. Bull. V. 18/5-6	4.00
African Conf. on Bilharziasis	.30
Intern. Stand. for Drinking Water	4.00
Virus Diseases. V. 17, no. 6	2.00
Endemic Goitre. V. 18, No. 1-2	4.00
Psych. Hosp. in Prevent. Work	.30
Report on the Effects of Atomic Radiation-No. 17 (A3838)	2.50
Communicable Diseases Bull. Vol. 19, No. 1/58	2.00

Any of the above may be obtained by writing: Columbia University Press, IDS, 2960 Broadway, New York 27, N.Y.

CLAIMS AGAINST CZECHOSLOVAKIA

United States citizens or business organizations who suffered property losses as the result of nationalization or other taking of their property in Czechoslovakia on or after January 1, 1945 should file claims with the Foreign Claims Settlement Commission, Washington 25, D.C. by August 1, 1959 under the provisions of Public Law 85-604, 85th Congress.

MEETING

The American Association for the Advancement of Science will meet in Washington, D.C., December 26-30. This is the seventh time in 104 years that the association will be holding its meeting in that city.

One of the objectives of AAAS is that of increasing the public understanding of science. All the principal fields of science are

represented in the association and, of course, will be represented at the meeting which will have its headquarters at the Sheraton-Park Hotel in Washington.

Further information regarding the meeting can be had from the headquarters of the association at 1515 Massachusetts Ave., N.W., Washington 5, D.C.

VAN METER PRIZE AWARD

The American Goiter Association has announced the Van Meter Prize Award of \$300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. For further information address the Secretary, 149½ Washington Ave., Albany 10, N.Y.

FILMS AVAILABLE

"Human Gastric Function" is a 16 mm. color, sound motion picture film of gastric function in "Tom" a subject whose fistula permitted observation of the gastric mucosa and stomach.

The film by Doctor Stewart Wolf, Head of the Department of Medicine of Oklahoma University School of Medicine, is available for showing by contacting the Medical Film Center of Smith Kline & French Laboratories, Philadelphia 1, Pa.

"MD-International" is a 16 mm. color sound film (running time 60 min.) available for showing. This was shown on television last January in cooperation with the American Medical Association. Arrangements for showing can be made with Smith Kline & French Laboratories, Philadelphia, Pa.

GRAND ROUNDS films are available for showing by contacting the Head of Professional Advertising Department of the Upjohn Company Kalamazoo, Mich. The most recent of these are "The Current Therapy of Diabetes" and "Highlights of the 1958 A.M.A. Convention."

Reach For Tomorrow, a film on rehabilitation, is available for showing to groups including professional societies. This black and white motion picture film has a running time of 27 minutes with narration by Henry

Fonda. Interested persons may contact the National Society for Crippled Children and Adults, Inc., 2023 West Ogden Ave., Chicago 12, Ill.

SOCIAL SECURITY

Social Security now covers more than 70 million people of the United States with 12 million drawing benefits of one form or another, and that number is increasing.

Beginning January 1, 1959 both employer and employee will pay 2½% a year on the first \$4,800 of salary. In other words a person receiving \$4,800 or more salary will pay \$120 for the year, and his employer will pay a like amount.

Rates can be expected to go higher as the number of beneficiaries is increased and Congressional benefactors add to the benefits. By 1969 it is estimated that an individual will pay \$216 a year.

During the last fiscal year the amount paid out in benefits exceeded the amount taken in.

PHYSICAL DISABILITY

More claims, more persons needed to process the claims, increased social security taxes

to pay the claims; that is the experience of the Social Security Administration in the matter of physical disability at the age of 50. This load will increase because on January 1 not only the worker but his dependents will be eligible for payments.

Honor Roll

Since the publication of our last list, the following sponsored one or more applicants for membership in the Association:

Major Edward A. Barrett, MC, USAR
Major Lynn Christy, USAF (NC)
Lt. Col. Jule E. Lane, ANC, USAR
Pharm. Dir. Boyd W. Stephenson,
USPHS
Col. Herbert Wendelken, MC, NY NG
A. B. C. Knudson, M.D.
Capt. Malcolm W. Arnold, MC, USN
Col. William H. Beard, MC
Lt. Col. James R. Skillen, DC, USA
Col. Harry Steinberg, MC, USAR
Col. Larry A. Smith, USAF (MC)
Lt. Col. Jack Pollock, MC, USA



NEWS ITEM

Major General Dan Ogle, The Surgeon General of the U. S. Air Force, will retire November 30. His successor is Major General Oliver K. Niess.

O B I T U A R Y

Rear Adm. Chas. W. O. Bunker, MC, U.S.N., Ret.

Charles W. O. Bunker, Medical Corps, U. S. Navy, Retired, died at the U. S. Naval Hospital, Bethesda, Maryland, on September 17 at the age of 76.

He was a native of Viroqua, Iowa. In 1905 he received his medical degree from Cornell University, was appointed Assistant Surgeon in the Medical Corps of the Navy in September 1907 and served for more than 37 years.

During World War I he was assigned to the Atlantic Transport Service, and in 1918 joined U. S. Naval Aviation Forces in Italy, where he was Senior Medical Officer. In 1919 he became Executive Officer of the Naval Hospital at Brest, France.

In 1931 he became Head of the Bureau of Medicine and Surgery's Planning Division and in this assignment worked extensively on the plans for the Navy's first "skyscraper-type" hospital at Philadelphia. In 1941 he commanded the Naval Medical

School and later became Medical Officer in Command of the National Naval Medical Center, Bethesda, Maryland where he served until his retirement from the Navy in July 1944.

He is survived by his wife, who resides at 5312 Moorland Lane, Bethesda, Maryland, a son and a daughter.

Interment was in Arlington National Cemetery.

Mrs Gertrude Sibley Phalen

Mrs. Gertrude Sibley Phalen died at the Walter Reed Army Hospital, Washington, on October 8.

She was the widow of Colonel James M. Phalen, U. S. Army, Retired, who died October 5, 1954. Colonel Phalen at the time of his death was Editor Emeritus of MILITARY MEDICINE.

Mrs. Phalen is survived by one niece, Mrs. Frances C. Brand, Ave. Goldsmith 39A, Polanco, Mexico, D.F.

Interment was in Arlington National Cemetery, October 10.

NEW BOOKS

Books may be ordered through this Association.

- Ciba Foundation, Vol. 12, Hormone Production in Endocrine Tumors*, Editor, G. E. W. Wolstenholme, O. B. E., M.A., M.B., B.Ch. and Maeve O'Connor, B.A., Little, Brown & Co., Boston, Mass. Price \$9.00.
- Clinical Orthopaedics, 11, Orthopaedic Surgery in the Geriatric Patient*, Editor-in-Chief, Anthony F. DePalma, J. B. Lippincott Co., Philadelphia, Pa. Price \$7.50.
- Progress in Cardiovascular Diseases*, Edited by Charles Friedberg, MD Vol. 1. No. 1. Progress in Cardiac Surgery, Grune & Stratton, New York, N.Y. Price single copy \$3.00
- Veterinary Protozoology*, U. F. Richardson, B.Sc., M.E.C.V.S. and S. B. Kendall, B.Sc., Ph.D., A.R.C.S., M.R.C.V.S., The Macmillan Company, New York, N.Y. Price \$4.50.
- Disinfectants: Their Values and Uses*, W. E. Finch, The Macmillan Company, New York, N.Y. Price \$5.50.
- Dentistry for Children*, John Charles Brauer, D.D.S., A.B., M.Sc., F.A.C.D., William W. Demeritt, D.D.S., L. B. Higley, B.A., D.D.S., F.A.C.D., Roy L. Lindahl, D.D.S., M.S., Maury Massler, D.D.S., M.S., Isaac Schour, D.D.S., Ph.D., D.Sc., McGraw-Hill Book Company, Inc., New York, N.Y. Price \$11.00.
- Textbook of Microbiology*, Kenneth L. Burdon, Ph.B., Sc.M., Ph.D. The Macmillan Company, New York, N.Y. Price \$5.75.
- Fear: Contagion and Conquest*, James Clark Moloney, M.D., Philosophical Library, New York, N.Y. Price \$3.75.
- An Introduction to the Study of Experimental Medicine*, Claude Bernard, Dover Publications, Inc., New York, N.Y. Price \$1.50.
- Synopsis of Surgical Anatomy*, Alexander Lee McGregor, M.Ch., F.R.C.S., The Williams and Wilkins Co., Baltimore, Maryland. Price \$7.00.
- Operative Surgery*, Vol. VIII, Charles Rob, MC, M.Chir., F.R.C.S., Rodney Smith, M.S., F.R.C.S., F. A. Davis Co., Philadelphia, Pa. Price \$19.50.
- Doctor Squibb*, Lawrence G. Blochman, Simon and Schuster, New York, N.Y. Price \$5.00.
- Report of the United Nations Scientific Committee on the Effects of Atomic Radiation*. General Assembly—Official Records—13th Session. Supplement No. 17 (A/3838). 1958. Columbia University Press, New York, N.Y. Price \$2.50.
- Infectious Diseases of Children*, Saul Kurgman, M.D., Robert Ward, M.D., The C. V. Mosby Co., St. Louis, Mo. Price \$10.00.
- Diagnostic Anatomy*, Weston D. Gardner, The C. V. Mosby Co., St. Louis, Mo. Price \$10.00.
- Bacterial and Mycotic Infections of Man*, 3rd Ed., Edited by Rene J. Dubos, Ph.D., J. B. Lippincott Co., Philadelphia, Pa. Price \$8.50.
- Lumbar Disc Lesions, Pathogenesis and Treatment of Low Back Pain and Sciatica*, J. R. Armstrong, M.D., M.Ch., F.R.C.S., Williams and Wilkins Co., Baltimore, Md. Price \$12.00.
- An Evaluation of Rehabilitation of Patients with Hemiparesis or Hemiplegia Due to Cerebral Vascular Disease*. Monograph XV, New York University Bellevue Medical Center, New York. Price \$1.00.
- Intracardiac Phenomena*, Aldo A. Luisada, M.D., Chi Kong Liu, M.D. Grune & Stratton, Inc., New York, N.Y. Price \$9.50.
- Cold Injury, Ground Type*, Colonel Tom F. Wayne, MC, USA (Ret.) Michael E. DeBakey, M.D., Medical Dept. United States Army, Office of the Surgeon General, Dept. of the Army, Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C. Price \$6.25.
- Your Child's World, From Infancy Through Adolescence*, Robert P. Odenwald, M.D., Written especially for Catholic Parents, Random House, New York, N.Y. Price \$3.75.
- Annual Epidemiological and Vital Statistics, 1955*, World Health Organization, Columbia University Press, New York, N.Y. Price \$12.00.
- Introduction to Psychiatric Nursing*, Marion E. Kalkman, R.N., M.A. McGraw-Hill Book Co., Inc., New York, N.Y. Price \$5.95.
- Rehabilitation in Industry*, Donald A. Covalt, M.D., Grune & Stratton, Inc., New York, N.Y. Price \$6.00.
- The Ureterovesical Junction*, John A. Hutch, M.D., University of California Press, Berkeley, Calif. Price \$7.50.
- Cholesterol*, David Kritchevsky, John Wiley & Sons, Inc. 440 Fourth Avenue, New York 16, N.Y. Price \$9.75.
- Emergency Treatment and Management*, Thos. Flint, Jr., M.D. W. B. Saunders Company, Philadelphia, Pa. Price \$8.00.
- Callander's Surgical Anatomy*, Barry J. Anson, M.A., Ph.D. (Med. Sc.) Walter G. Maddock, M.S., M.D., F.A.C.S., W. B. Saunders Co., Philadelphia, Pa. Price \$21.00.
- The Steel Cocoon* by Bentz Plagemann. The Viking Press, Inc., New York. Fiction. A cocoon encloses life which after a period of time emerges

in another form more active than before. So here is a steel cocoon (the destroyer, *Ajax*) men are developed into a team. The medical chief petty officer creates some problems for the crew. Entertaining. Price \$3.75.

Technic and Practice of Psychoanalysis, Leon J. Saul, M.D., J. B. Lippincott Company, Philadelphia 5, Pa. Price \$8.00.

So You Have Glaucoma, Everett R. Veirs, M.D., Grune & Stratton, Inc., New York, N. Y. Price \$2.75.

Insecticide Resistance in Arthropods, A. W. A. Brown, Ph.D., World Health Organization, Columbia University Press, New York, N.Y. Price \$5.00.

Publications of the World Health Organization 1947-1957, A Bibliography, Columbia University Press, New York, N.Y. Price \$3.25.

Antarctic Assault, Commander Paul W. Frazier, USN. Story of Rear Admiral George Dufek's Volunteers in Building and supplying stations for scientific teams. Dodd, Mead & Company, New York and Toronto.

The Complete Book of Submarines, Commander C. W. Rush, USN, W. C. Chambliss and H. J. Gimpel, The World Publishing Co., 2231 West 110th Street, Cleveland 2, Ohio. Price \$4.95.

Basic Clinical Parasitology, David L. Belding, M.D., Appleton-Century-Crofts, Inc., New York, N.Y. Price \$9.00.

Eye Surgery, H. B. Stallard, M.B.E., M.A., M.D. (Cantab.), F.R.C.S. (Eng.), Hon. LL.D. (St. Andrews), The Williams & Wilkins Company Ltd. Baltimore, Md. Price \$18.00.

The Management of Emergencies in Thoracic Surgery, John Borrie, M.B.E., Ch.M., F.R.C.S. (Eng.), F.R.A.C.S., Appleton-Century-Crofts, Inc., New York, N.Y. Price \$10.00.

Rehabilitation Medicine, Howard A. Rusk, M.D., The C. V. Mosby Company, St. Louis, Mo. Price \$12.00.

Thorax—Section IV of Stereoscopic Atlas of Human Anatomy. 140 views. Sawyer's, Inc., Portland. Price \$16.50.

Alcoholism, Arnold Z. Pfeffer, M.D., Grune & Stratton, New York, N.Y. Price \$4.50.

Notes de Techniques Chirurgicales de La Presse Medicale, Lucien Legar, Masson et Cie, Editeurs, 120, boulevard Saint-Germain, Paris 6, France. Price 3,800 fr.

Les Hemoptysies Tracheo-Bronchiques, Andre Meyer & Jacques Chetien, Masson et Cie, Editeurs, 120, Boulevard Saint-Germain, Paris 6, France. Price 2,000 fr.

Ciba Foundation Symposium, Neurological Basis of Behaviour, Editors G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc., Little Brown & Co., Boston, Mass. Price \$9.00.

Ciba Foundation Colloquia on Ageing, Vol. 4, Water and Electrolyte Metabolism in Relation to Age and Sex, Editors, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc., Little, Brown & Co., Boston, Mass. Price \$8.50.

Pathophysiology in Surgery, James D. Hardy, M.S. (Chem.), M.D., F.A.C.S., The Williams & Wilkins Co., Baltimore, Md. Price \$19.00.

Varicose Veins, 2nd Ed., David W. Barrow, M.D., Paul B. Hoeber, Inc. (Dept. of Harper & Bros.) New York, N.Y. Price \$6.00.

Peripheral Vascular Disorders, Diagnosis and Treatment, David I. Abramson, M.D., Paul B. Hoeber, Inc. (Dept. of Harper & Bros.) New York, N.Y. Price \$13.50.

Clinical Neurology, 4th Ed., Bernard J. Alpers, M.D., Sc.D., F. A. Davis Co., Philadelphia, Pa. Price \$11.50.

Atlas of Technics in Surgery, John L. Madden, M.D., F.A.C.S., et al., Appleton-Century-Crofts, Inc., New York, N.Y. Price \$30.00.



CORRECTION

Article: *Cancer of the Stomach in Honduras*, by Mark M. Schapiro, M.D., M.S., *Military Medicine*, Vol. 123:113-120, Aug. 1958. On page 117 first paragraph under *Results* should read:

"Surgery was performed on 18 patients for cancer of the stomach during the two year period of this study. Three patients

(16.6 percent) were subjected to radical total gastrectomy; 9 patients (50 percent) were subjected to palliative procedures such as tubovalvular gastrostomies (6 cases) and anterior gastroenterostomies (3 cases); and 6 patients (33.4 percent) were opened and closed without any further operative intervention."

BOOK REVIEWS

OPERATIVE SURGERY. Vol. 6. Hand, Amputations, Plastic Surgery, Gynecology and Obstetrics. Under General Editorship of Charles Rob, M.C., M.Chir., F.R.C.S., Professor of Surgery, St. Mary's Hospital, Lond; and Rodney Smith, M.S., F.R.C.S., Surgeon, St. George's Hospital, London. 430 pages, illustrated. F. A. Davis Co., Philadelphia. Set to include 8 volumes; price per vol. \$19.50.

There are specific operative clinical problems discussed by leading authorities under each of the sections. This volume is written not as a text book on surgery, but as a simplified outline of operative technique.

In the first section, devoted to the Hand, many of the major problems which one meets operatively in hand surgery are discussed by various authors. These are discussed under Congenital Abnormalities, Trauma, and Infection of the hand, as well as other problems such as, Dupuytren's Contracture, Carpal Tunnel Syndrome, Teno-vaginitis, Ganglia, and Tendon Transfers. Of particular interest is the section by R. Guy Pulvertaft on the repair of severed tendons in the hand, illustrating his methods of repair, and a discussion of his ideas of after care.

The section on Amputations, written by Sir Gordon-Taylor, Bernard H. Hand, Roland N. Jones, and Leon Gillis, is beautifully illustrated, and details each type of amputation procedure used in the upper and lower extremity.

The section on Plastic Surgery covers general principles, skin grafting techniques, bone and cartilage grafting, the reduction of facial fractures, plastic surgery of congenital deformities, plastic surgery of cancer in the face, and plastic surgery of other regions.

The section on Cleft Lip and Palate, by E. W. Peet, is quite excellent, both from the standpoint of the types of procedures discussed, and the illustrations.

The section on Gynaecology and Obstetrics covers the minor gynaecological operations that one sees, together with vaginal and abdominal operations.

The approach which has been used by Charles Rob and Rodney Smith in this Operative Surgery, in having various authorities discuss various phases of the surgical specialties, is an excellent one. They are to be complimented for the way in which the brief discussion to the left of the page appears in

conjunction with the artist's drawing of what the author is speaking about, so that as one reads the simple text, automatically one's eyes fall across the page to the illustration and very quickly the reader can assemble in his mind the thoughts of the author with reference to the technical procedure involved.

RAYMOND M. CURTIS, M.D.

SELF-HELP DEVICES FOR REHABILITATION. A co-operative service project of The National Foundation for Infantile Paralysis and New York University-Bellevue Medical Center. 418 pages, profusely illustrated. Wm. C. Brown Co., Dubuque, Iowa. Price \$4.75.

This is a loose-leaf, paper covered book for those individuals who are working with disabled persons and need to suggest home made devices for their comfort and care.

Most of the articles can be made at very little cost in the home workshop. They have been classified according to their purpose.

This is a valuable book full of inexpensive devices for the disabled.

R. E. B.

A TEXTBOOK OF CLINICAL NEUROLOGY. With an Introduction to the History of Neurology. 8th Ed. By Israel S. Wechsler, M.D., Consulting Neurologist, The Mount Sinai Hospital, New York. 782 pages with 179 figures. W. B. Saunders Company, Philadelphia and London. Price \$11.00.

This being the eighth edition of America's oldest current neurology text, attests to its popularity.

Pathophysiology and therapy remain sketchy. These defects coupled with too little correlation with general medical conditions and personal generalizations such as the author's undue pessimistic emphasis in regard to the socio-economic place of the epileptic, (e.g. "With individuals who have frequent convulsions, even if fairly controlled, and whose condition came on early in life, marriage should be forbidden.") remain the text's main drawbacks.

Sound general concepts in terms of examination, diagnosis and classic clinical descriptions are the books strong points. The History of Neurology Section and its bibliography continue to be extremely well done.

JAMES F. HAMMILL, M.D.

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